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A MONTHLY JOURNAL DEVOTED TO DISEASES OF THE NOSE - THROAT - EAR

FOR CONTENTS SEE NEXT PAGE.

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THE

LARYNGOSCOPE.

VOL. IV. ST. LOUIS, MO., MARCH, 1898. No. 3.

ORIGINAL COMMUNICATIONS.

THE CONTROL OF NASAL HEMORRHAGE.

BY E. B. GLEASON, M.D.

Clinical Professor of Otology, Medico-Chirurgical College, Philadelphia.

In the January number of THE LARYNGOSCOPE, under the heading of "Selections from Current Medical Publications," rhinological reference is made to recent correspondence of Dr. T. M. Baird, addressed to the *Journal of the American Medical Association*, in which Dr. Baird calls attention to the superiority of oil over Monsel's solution, antipyrine and other substances in packing the nose for the control of nasal hemorrhage. As I have employed fluid cosmoline and alboline for the control of nasal hemorrhage for the past ten years, it is probable that the method described by Dr. Baird originated with me. In the second edition of my quiz compend—diseases of nose and throat—is an article describing a method of packing the nose with absorbent cotton, saturated with cosmoline or other bland oil, "the oil being superior to Monsel's solution or any styptic for preventing the escape of blood." Although I have not at hand the volume to refer to, I am under the impression that the paragraph quoted remained unchanged from the first edition of this little book, published in 1890. The idea of packing the nose with cotton, satu-

rated with oil, originated from Dr. D. Hayes Agnew's plan of packing the nose with ham fat. I had known this method to succeed in controlling nasal hemorrhage after other measures had failed, and it seemed as if absorbent cotton, soaked in cosmoline, must be equally effective and more cleanly and convenient.

Almost as important as the speedy control of severe nasal hemorrhage is the employment of a packing that can be removed in such a manner as to diminish pressure upon the bleeding spot *gradually*, and thus not bring about a recurrence of the hemorrhage when the packing is removed from the nose. This can be accomplished, as described in an editorial, signed by me, in the *Atlantic Medical Weekly*, September 5, 1896:

"The posterior naris may be efficiently occluded in the following manner: A strip of patent lint or muslin, one and one-half inches wide and eighteen inches long, is saturated with cosmoline, folded near one end over a probe and pushed through the bleeding nostril into the pharynx, and the probe withdrawn. The nose and pharynx are now occupied by a sort of bag, while the short and long ends of the strip of lint project from the anterior naris. The short end of the strip should be next to the septum, as the bleeding is probably from one of the septal vessels. The long end of the strip is then folded near the ala nasi over the probe and the loop carried into the bag within the nose and pharynx, which is gradually filled with loops of the strip of patent lint, thrust firmly into it by means of the probe. When all is finished the posterior naris is completely occluded by a compact mass which projects backward into the pharynx, surrounded by a sort of bag, which prevents any loop being displaced downward below the palate. From the anterior naris projects a loop next to the ala, while the two ends are next the septum. By traction upon the more lateral of these ends, loop after loop can be gently drawn from the nose.

"At the end of twelve hours the nasal mucous membrane has swollen to such an extent that the packing is very tight and the patient is exceedingly uncomfortable. A portion of the packing can now, with safety, be easily drawn from the nose. As soon as the slightest sign of bleeding occurs, the portion removed should be cut off with a pair of scissors, and the rest of the packing allowed to remain. This process can be repeated as often as is necessary to relieve excessive pressure within the nose. That portion of the lint which forms the outer coating or bag which surrounds the packing is, of course, removed last, and the place from which the bleeding proceeded hence remains protected and undisturbed until the last portion

of the strip of lint is removed from the nose. It is often not safe to remove this last part of the lint until the end of the second or third day."

Until within the last year or so I relied entirely upon the methods described above, and never knew them to fail to promptly and satisfactorily control all cases of nasal hemorrhage. During the past year, however, I have treated severe post operative nasal hemorrhage by simply wrapping a large piece of absorbent cotton loosely about a probe and thrust it, dripping with a fifteen volume solution of peroxide of hydrogen, along the floor of the nose until the pharynx was touched. The mass of cotton should be large enough to completely fill the inferior meatus. So great is the pressure caused by the *increase in bulk of the clot* already within the nose, and liberated gases, that it is necessary, in most cases, to hold the cotton in position for a few moments with the finger tip, during which time the probe is withdrawn. If necessary, the plug of cotton is then held in position by means of smaller pieces of absorbent cotton, saturated with peroxide, packed into the anterior naris in front of it. Thus far, this latter method has proved effective, and was also satisfactory in a case of hemophilia, where packing the posterior naris in the ordinary manner, with the aid of Belloque's canula, had failed to control nasal hemorrhage.

Although nasal hemorrhage can generally be controlled quickly and easily in the manner described above, by packing the nose with plugs of absorbent cotton dripping with peroxide of hydrogen, yet it will be observed that the method is defective, inasmuch as after the smaller masses of cotton are removed from the anterior portion of the naris, there yet remains a large plug of cotton which, if removed quickly, suddenly removes pressure from the bleeding spot and causes renewed hemorrhage. This accident can often be prevented by removing the mass of cotton very slowly, with steady, gentle traction exerted at intervals of two or three minutes in order that five or ten minutes elapse before the plug is entirely withdrawn from the nose.

In cases of severe nasal hemorrhage, it is well to allow at least twenty-four hours to elapse before removing the packing, and if hemorrhage then recurs to attempt to control it by the insertion of a smaller mass of cotton dripping with peroxide. It should be remembered that the parts have in the meanwhile become sore and tender so that every maneuver should be executed with the utmost gentleness. When nasal hemorrhage has been controlled by either of the methods described above, the patient should be cautioned not to touch the packing. If he presses from time to time a handkerchief against it,

a little blood will be squeezed out of the anterior portion of the packing, and when the pressure of the handkerchief is released, the packing will, to a certain extent, expand like a sponge and exert suction upon the wound and cause a renewed bleeding. In this manner the packing may finally become inadequate, while if it had been let alone it would have been amply sufficient to have controlled the hemorrhage.

If a little blood oozes through the packing at certain spots, it is best to touch such spots upon the anterior surface of the packing with a strong solution or a little powdered persulphate of iron. By repeating this procedure and allowing the parts to dry, the anterior surface of the plug finally becomes coated with a sort of black varnish, hard and glistening, through which no blood can ooze.

A Case of Naso-Pharyngeal Fibroma in an Aged Woman; Treatment by the Curette; Cure.

The patient was a woman of sixty years. The tumor had existed for twenty years and had a nasal prolongation. (*Revue Hebd. de Laryng., d'Otol. & Rhin., Dec. 18, 1897.*) Dr. Gaudier removed the growth with the curette in the same manner as in adenoid vegetations. There was little hemorrhage and the patient rapidly recovered.

SCHEPPEGRELL.

The Treatment of Ozena by Choanal Tamponage.

The method advised by Dr. Kofemann is based on the bactericidal effects of menthol and eucalyptol. (*Revue. Hebd. de Laryng., d'Otol. & Rhin., Dec. 25, 1897.*) The novelty of the method consists in tamponing the choanal space by means of a rubber bag, so as to obtain the prolonged effect of the medicaments with the whole mucous membrane of the nose.

The bag is inflated by means of water which is kept at a sufficient pressure to occlude the naso-pharyngeal space. The patient is then placed in the horizontal position and the nasal fossa filled, by means of a syringe, with a solution containing menthol and eucalyptol. The patients soon become accustomed to this method, and appear to suffer very little inconvenience from its application.

SCHEPPEGRELL.

EPISTAXIS AS A SYMPTOMATIC COMPLICATION DURING RECENT DENGUE EPIDEMIC IN HOUSTON, TEXAS.*

JOSEPH A. MULLEN, M.D., HOUSTON, TEXAS.

Fellow of the American Laryngological, Rhinological and Otological Society.

Among other interesting and instructive clinical observations made during the recently passed epidemic in Houston, Texas, called by some yellow fever, and by the majority dengue, it was my good fortune to come in contact with a class of cases which, I hope, may prove of some interest to the Fellows of this association. The interest in the following appended cases depends solely upon the symptom epistaxis occurring during the epidemic, especially as it took place after subsidence of the fever and during convalescence, and not during pyrexia. The character of hemorrhage was general and local. The former was characterized by arterial oozing from the turbinal and septal mucous membrane, while the latter was confined to the cartilaginous septum and anterior end of inferior turbinate.

W. E., boy, aged ten years. Epistaxis occurred about forty-eight hours after all fever had subsided. Bleeding had been, more or less, recurring for three days. Anemia was marked. He spat and vomited clotted blood. Examination showed a small ulceration of the cartilaginous septum, superficial in extent. The ulceration was treated with fused chromic acid.

Case 2. L. B., aged seven years, boy. Was seized, after convalescence, and while on the street, with bleeding from the nose. An examination revealed a small superficial ulcer of the cartilaginous septum and bleeding from the anterior end of the inferior turbinate. Treatment same as preceding case.

Case 3. Boy, aged twelve years. Had sudden hemorrhage from left nose. The bleeding was general from the septum (no ulcer) and turbinates—a diffuse arterial oozing. The mucous membrane surfaces were painted with liquid chromic acid. Epistaxis ceased in several hours.

Cases 4 and 5 were boys also. The character and site of hemorrhage were the same as in case 1.

Case 6. Mrs. O., aged twenty-eight years. Bleeding came on about six days after convalescence began and was dependent upon a

*Read January 24th, 1898, at Albany, N. Y., before the Eastern Section of the American Laryngological, Rhinological and Otological Society.

small superficial ulcer of cartilaginous septum. Treatment with fused chromic acid.

Case 7. Mr. K., aged sixty years. Had been actively engaged after recovery from dengue when nasal hemorrhage began, recurring in character and very weakening. In this case there was also a small superficial ulcer of the cartilaginous septum. Fused chromic acid stopped the epistaxis.

The reports by medical friends in the city of a good many cases other than these reported prove this symptom to have been quite prevalent, alarming, and in one case fatal.

A Case of Retro-Pharyngeal Cyst.

Dr. Cesaris Demel reports the case of a retro-pharyngeal cyst which was found in a man who died from other causes. (*Grazz. degli Ospedeli*, July, 1897.) This cyst, about the size of a hen's egg, was in the supero-posterior angle of the pharynx behind the mucosa.

The histologic examination of the capsule showed great resemblance to the thyroid body, the cyst being filled with a tenacious mucus. Many nodules of the accessory thyroids were found around the cyst in the lateral region of the neck, thus demonstrating that it was the result of a cystic degeneration of one of these nodules.

SCHEPPEGRELL.

Twelve Cases of Primary Diphtheritic Rhinitis.

In twelve cases Dr. Eaman made a bacteriologic examination of the false membrane, and in each case found the bacillus of Loeffler. (*Revue Hebd. de Laryng., d' Otol. & Rhin., Dec. 18, 1897.*) All the cases recovered. SCHEPPEGRELL.

FOREIGN BODY IN NOSTRIL FOR THREE AND A HALF OR FOUR YEARS.

BY CLARENCE R. DUFOUR, PHAR.D., M.D.

Physician in Charge of Eye Department, Eastern Dispensary; Ophthalmologist and Otologist to Sibley Memorial Hospital; Assistant in Eye and Ear Department of Central Dispensary and Emergency Hospital, and Instructor in Ophthalmology and Otology; Georgetown Medical College, Washington, D. C.

Fannie K. was referred to me by the family physician, on account of the gradual enlargement of her nose, especially in the right side, and of severe epistaxis, increasing in frequency and in amount of blood lost. The condition of the nose was first noticed when she was about three years old, and, as before mentioned, has been getting worse. She was seven years old when I first saw her. At that time the right side of nose was very much enlarged, and the nostril occluded. It was necessary to give her an anæsthetic in order to

make the examination, and with the consent of her parents, whatever was necessary was to be done at that time, if possible. I found the nostril occluded with a mass of granulations, which bled profusely upon the slightest touch. After clearing them away and arresting this hemorrhage I passed a probe into the nostril, which encountered a hard substance which was rough and felt like necrosed bone. Upon manipulation it became loose and I was able to remove it with forceps. After washing and removing the granulations which adhered to it I saw that it was a shoe button covered by calcareous incrustations (see photograph), which had been in the nostril between three and one-half and four years. The nostril was washed out with an antiseptic wash, the nose gradually assumed its normal size, the epistaxis ceased and the child's nose is now in its normal condition. I would state that the child had been seen by several physicians before being seen by the one who referred her to me. They advised washes and ointments, and did not seem to think that a growth or foreign body might be present.

1016 Fourteenth Street.

THE TEXAS SCREW-WORM—REPORT OF A FATAL CASE.

BY CHARLES M. ROBERTSON, A.M., M.D., DAVENPORT, IOWA.

In the October issue of THE LARYNGOSCOPE I noticed a report of a case caused by the Texas screw-worm. In the December number two or three additional cases were reported. I had just finished a talk with Dr. Ferry, of Geneseo, Ill., who reported to me a case as follows:

The patient, a male, æt. fifty-four, married, had recently located in Geneseo, having come from the Southwest. He was first seen by Dr. Ferry on October 9, when he found him with pulse 80, hard and full, temperature 101 degrees. He noticed the upper portion of his nose swollen to a considerable extent. There was an offensive odor and a bloody discharge coming from the nose. Patient complained of dizziness or staggering when locomotion was attempted. There was a constant desire to sleep. On October 10 the symptoms were all aggravated. Pulse 85, temperature 102. Patient unable to sit up. Dizziness accompanied by headache. More stupid, going to sleep while talking. The discharge more profuse, nose more swollen. Temperature toward evening ran up. Was given a dose of antikamnia, which relieved headache. Slept comfortably this night. October 11, symptoms same as on the 10th, save that his nose was swollen more and the discharge was more fetid and profuse. About 3 p. m. worms were first noticed. They appeared in the anterior nares on the right side. The lumen of the nostril was distended to one-half inch in diameter and filled with a wriggling mass, completely plugging the nostril. We began to pick them out with a slender forceps and, after removing a dozen or more of the seeming half hundred, those remaining disappeared as by magic, so that not a single one could be seen in the anterior nares. After allowing the patient to rest a few hours they showed themselves again, allowing some to be removed, after which they disappeared as before. On Monday night two were passed by stool dead. Patient did not complain of pain. Grew gradually worse, the coma becoming more profound. Tuesday, October 12, patient took little nourishment. Can be roused easily. Pulse 95, temperature 102. Wednesday, October 13, could be induced to take nourishment with difficulty only. More comatose. Can hardly rouse him. Tongue dry and parched. Base of brain and spinal column very hot. Pupils contracted; respond very little

to light. Thursday, October 14, pulse 100, temperature $102^{2}/_{5}$. Coma profound. Head thrown back and chin elevated. From this he grew gradually worse and died Friday, October 15, at 1 p. m.

In all, there were 120 worms removed, together with others that were found in his bed. The treatment administered was injections of listerine, hydrogen peroxide, perman. potass. and chloroform. None of the medicaments availed save the chloroform. The patient's symptoms simulated from the first some brain lesion, either abscess or septic poisoning, from absorption of septic matter. The patient was given stimulants, but to no avail. No autopsy could be obtained.

McKenzie, on diseases of the nose, gives a summary of all articles written on this subject up to the time of his publication, and in substance states as follows:

Though this affection is the cause of widespread suffering in tropical climes, it is scarcely met with in this climate. Elevated situations, even in tropics, are free from it. In Mexico it is not heard of above 4,200 feet altitude. Very few cases have been described as occurring in Europe.

ETIOLOGY.

This disease is caused by the hatching of eggs which have been laid within the nose by a fly. It is attracted by the foul odor of a chronic catarrhal inflammation, or a specific or atrophic rhinitis, or any disease which has for a symptom ozena.

McKenzie describes the fly under the name of Luciliahominivora. It is nine m.m. in length, with tawny palps. and a light tawny face. The cheeks are covered with golden-yellow down. The head is large, wider in front than behind. The thorax is blue, with black and yellow stripes, with an abdomen of the same color. The feet are black and the wings transparent. The larva is dull white, fourteen or fifteen m.m. in length by three or four m.m. in width. It is narrower in front, and is divided into eleven segments, the widest part of the body corresponding to the sixth segment. The head is indistinguishable from the first segment. Eyes are absent, and the mouth is formed by a sort of lip, on which are two protuberances, at the base of which, near the middle line, are two corneous mandibles, placed side by side, the mandibular hooklets being very sharp and separated outside, though closely united in the thickness of the tissues. On each side of the first segment there is a brown, corneous patch, which covers the orifice of the upper stigmata. At the base of each segment there is a projecting part covered with small spines, very numerous and close together. Each fly will deposit as many as 20,000 eggs.

SYMPTOMS.

After the deposit of the ova, which occurs usually in the heat of the day, the mucous membrane soon becomes irritable, a constant tickling is felt and sneezing is a common symptom. Shortly after this (forty-eight to sixty hours) comes a bloody, sanious discharge, frequently epistaxis, with a sensation of crawling referred to the nose. The patient complains of some frontal headache, occlusion of one or both nostrils, or at the root of the nose a pain, which has often the character of a throbbing one. This pain may intermit or remain constant, giving rise to most distressing insomnia, causing the patient to contemplate suicide. Œdema of the face and eyelids is characteristic. Swelling of the palate may take place. Small tumors, at times, appear over the nose and in adjacent parts, which open, or being opened, allow the escape of one or several larvæ. The patient becomes delirious and later comatose. General systemic symptoms appear and finally death ensues, preceded by symptoms referable to disturbance in the substance of the brain, septic poisoning or exhaustion.

DIAGNOSIS.

The diagnosis may be difficult until the larvæ appear, after which a mistake is impossible. The odor and bloody discharge would at once suggest a necrotic condition of the lining membrane.

PATHOLOGY

consists of a more or less total destruction of the mucous membrane lining the nasal and accessory cavities of the nose. It is, in the early stages, difficult to pick the larvæ from the mucous membrane, as they seem embedded in the tissue. They denude the bone and cartilage, and, in later stages, seem to burrow through the thin bony plates (whether before it is softened by necrosis or after is a question, but in cases that have resulted fatally, great numbers were found in the brain substance). In many instances the cerebral substance is injected and the ventricles filled with bloody serum, or the meninges were found of a deep red color and filled with blood.

PROGNOSIS

is favorable if the presence of the larvæ is detected early. If strict measures are adopted, and adopted early enough, most of them recover. Lahory met with but two fatalities in ninety-one cases. St. Pair lost two out of six cases.

TREATMENT.

Inhalations of chloroform are often sufficient to effect a cure, but it may be used by injection with equal parts of water. If this should fail, pure chloroform is extremely painful and the patient should be anæsthetized or a strong spray of cocaine used. Injections of tur-

pentine are of questionable value. Inflations of calomel or alum powder have been used with varying success. Sleep should be induced when necessary and relief of pain secured. The patient should be given stimulants and nutritious diet either by stomach enemata. Bichloride of mercury, 1-1,000, may be used, or Formalin, 1-10,000, by injection. Of course, all the larvæ are to be picked out with forceps, and often sneezing on the part of the patient will dislodge great numbers of the larvæ.

HISTORICAL.

Previous to the present century there are only a few examples of myasis of the nose on record.

Gahrlieb reported a case in which a peasant, afflicted with great pain in the forehead and root of nose, made a decoction, and after an epistaxis came on was followed by the expulsion of a number of large maggots.

Behrends treated a woman, suffering from unbearable headache and slight swelling of the nose, by injecting a decoction of tansy, rue and absinthe. Thirty maggots were brought away; cured.

Wolfahrt, twenty years later, in which a patient, suffering from terrific headache, was treated by inhalations of alcohol, and eighteen maggots were brought away. These were placed in a box and in thirty days developed into flies.

Tengmalan, fifty years later, related the case of an infant, eight months old, who expelled worms from the nose. (This, probably, was not a case of maggots under discussion.)

Toward the end of the last century, Azara had opportunity to observe several cases of maggots in the nose, in Paraguay. In 1830, MacGregor published a case having come in contact with the disease in India, and similar cases were reported by Lahory, Moore and Ohderder. It was also studied by Coquerel, in Cayenne, by Morel, Gonzalez, Jacob and Weber, in Mexico, and by Frautzius, in Costa Rica. In Europe, Mankiewicz reported a case which he had treated. Moquin Tandon related cases he had met in Italy. MacGregor had a patient who, for three months, felt a pain in his left cheek and inside the nostril. On blowing his nose violently some worms were expelled, which alarmed him very much, but gave him some relief. Subsequently his cheek swelled; a fetid, bloody discharge issued from his nose; he became greatly excited; had attacks of shivering, etc. Ammonia fumes were used to excite sneezing and about 100 larvæ were expelled. (See note.) Lahory, of India, wrote an article on peenash, indicating a disease of

NOTE.—They were about one-half m.m. in length, thinner in front than behind, and segmented. Without feet. They were white and had black spots at the posterior extremity.

the nose attended by maggots. He had seen it in all ages, from eight to eighty. Most common in hot weather, from July to September. He observed that bad food and dirt predisposed to the disease and it occurred mostly in flat noses. He described the symptoms as deep-seated, indescribable pain over the frontal sinuses, in the orbits and in the ears, with a crawling sensation inside the nose. Epistaxis occurred often. The patient had a disposition to hold the head down, and there was so much ecchymosis and swelling of the eyelids that vision was often obstructed. As the disease went on, ulceration of the nose took place and a large portion of the organ frequently sloughed away. There was often high fever with severe constitutional symptoms.

Coquerel, a surgeon in the French naval service, has given the most detailed report of cases treated by St. Pair and Chapnis, while stationed in Cayenne, in French Guiana. He saw no patients himself but had access to notes by others. The chief symptoms observed by him were fomication in the nose with severe frontal headache, accompanied, in some cases, by a sensation resembling blows with an iron bar. There was also swelling of the nose, extending over the face and especially involving the eyelids. Severe epistaxis was often met with and not infrequently there was considerable inflammation of the internal tissues of the nose, which, in some cases, spread to the meninges and caused death. Tumors occasionally occurred on the nose which opened spontaneously and from them large numbers of larvæ escaped. The noses were syringed by solutions of alum or decoctions of tobacco. In some of the cases reported by him, the amount of larvæ expelled amounted to 200 or 300. In the patients that recovered, the septum was frequently in a great measure destroyed and in many cases the nose was almost eaten away. Of six men treated by St. Pair, three died with symptoms of meningitis whilst in two of the survivors the nose had completely disappeared, and in one it was terribly deformed. In the fatal cases, the meninges were found a deep red color and full of blood, especially at the base of the brain. The cerebral substance itself was injected and the ventricles full of bloody serum. One case, who had nearly recovered, was attacked by erysipelas of face and scalp, from which he died. In this case, at post-mortem, bundles of larvæ were found encrusted in the frontal and maxillary sinuses. (The patient probably died of septic disturbance, from poison taken up from decomposing larvæ, causing the erysipelas, which is one form of septic poisoning.) In this place, the surgeons generally insufflated alum or used injections of tobacco decoctions, but with indifferent success, as this too often

made the membrane puffy and closed the openings to the sinuses. He states, that if killed, the maggots often putrefy within the sinuses and thus give rise to new symptoms of septic poisoning. When there was reason to suspect that they had entered the frontal sinuses or the antrum, the Cayenne surgeons trephined these cavities.

In 1862, the French government sent a military expedition to Mexico to study diseases produced by the entrance of flies into the nose. Morel based his information on five cases, which came under his observation. He thinks that the fly always enters the nose during sleep, and found those with symptoms of ozena particularly liable to the disease. In four of his cases such symptoms existed, while in the fifth the patient was suffering from a boil close to the spot attacked. He observed that in the nasal fossæ the mucous membrane and all the tissues are reduced to a pulp, exposing the bones and cartilage, which soon becomes necrosed. He was the first to advocate the use of chloroform and water. It was used in equal parts and shaken well, being injected before it had time to separate. In the cases in which he used this, recovery was rapid, save in one in which he tried it too late.

Jacob learned from the natives that the malady was tolerably common amongst them which they attributed to a neglected cold.

Frautzius, a German physician, practicing in Costa Rica, published some interesting remarks on the disease. He observed that sneezing was an early and constant symptom and attributed it to the tickling sensation caused by the gliding movement of the larvæ when they were seeking a suitable nidus. The other observations were also present.

Prince also reported a case in which much of the mucous membrane of the nasal cavities was destroyed.

Of recent date several cases have been reported, nearly all of whom originally hail from the Southwest. The disease is common in cattle, hogs and sheep. In the latter, all die from extension of larvæ into the meninges. They are found in very great numbers in the cerebral substance, their presence being due to their boring through the bone from the frontal, ethmoidal or sphenoidal sinuses or through the cribiform plate of the ethmoid. This either before the breaking down of the bony parts, by their boring propensity, or after the bony parts have become soft by necrotic changes. In the case cited, the man died from the presence of maggots in the brain substance, as noted by the symptoms cited.

The Texas screw-worm differs little from our blue-bottle fly, save that the larvæ are much thicker and have greater destructive power.

A NOTE ON THE ETIOLOGY OF ATROPHIC RHINITIS.

BY E. C. ELLETT, M.D.

Ophthalmic and Aural Surgeon to St. Joseph's Hospital, and to the Children's Home, Memphis, Tenn.

There are two principal theories as to the cause of this most troublesome affection, one being that held and well championed by Dr. J. N. Mackenzie[1], of Baltimore, that atrophic rhinitis is the late stage of hypertrophic rhinitis, or rather that the two represent the hypertrophic and atrophic stages of nasal sclerosis, analogous to the cirrhotic processes in the liver. The other, and more generally entertained view, is that atrophic rhinitis is atrophic from the beginning, and is the effect of a pre-existing purulent rhinitis. This latter view is the one which I think has been demonstrated several times in my observation, though it does not fit all cases. It seems to be true that the inflammatory process often arises in the ethmoid cells, and the first manifestations of atrophy are in the region of the middle turbinated body. As mentioned by Casselberry[2], all cases of hypertrophic rhinitis do not go to an atrophic stage, and atrophic rhinitis occurs sometimes at too early an age to permit of a precedent hypertrophic stage. The assumption of Mackenzie that this may have occurred *in utero* is entirely theoretical, and is contrary to the accepted views of atmospheric conditions playing a part in the causation of this form of rhinitis. So, no one cause seems to act in all cases. I wish to record two series of cases, occurring in two families, in which I believe the conditions present in the different cases represent different stages in the same process, and show very prettily the transition from purulent to atrophic rhinitis.

In the first family are two children only. The father was a physician, now dead of tuberculosis.

Harold, aged six, was brought to me from their home in a neighboring county, in September, 1894. He had then been "sniffling" for some months. I found a profuse purulent discharge from the nose, without organic change in the nasal mucous membrane. The discharge seemed to come from the surface of the membrane, and there was no indication of involvement of any of the accessory sinuses. I was compelled to prescribe for him, and have the treatment carried out at home. An alkaline spray was ordered, and has been faithfully continued to the present time. He has also had, at

intervals, the compound stearate of zinc and europhen insufflated, but the principal part of the treatment was the alkaline spray. The following spring I again examined him and found but little change. He did not come to see me again for two years. In March, 1897, I saw him, and found a very healthy nose, with a little muco-purulent secretion in the region of the middle turbinated-body. There were no crusts and no odor. He continues to use the spray, and from other members of the family I hear that he is still in the same comfortable condition as when I last saw him.

Julia, aged seven, was seen in September, 1894, and is the sister of Harold. For more than a year she had had a nasal discharge. I found the same abundant purulent discharge as in Harold's case, but the mucous membrane was decidedly atrophic, the nose being unusually capacious. There was no crust formation, or odor. I gave her the same wash that I gave her brother. In spite of this I found crusts forming the following spring. More vigorous douching, with applications of various stimulants and the stearate of zinc and europhen powder, relieved this symptom. I have not been able to get her under my care for any length of time, but the above measures in the hands of the mother and the family physician keep away the crusts and odor, and in December, 1897, when I last saw her, the nasal mucous membrane, while distinctly atrophied, was moist, and free from crusts and odor. This state of affairs has existed for nearly a year, and I hope to find that thorough cleanliness will keep the conditions favorable.

The second series concerns three children of a family of eight. The mother died of an acute illness. The father, I am told, has "catarrh."

Clarence, aged six, was seen in the spring of 1897, with the history of a nasal discharge for one and a half years. This was abundant, thin, and yellow in color, without crusts or odor. Atrophy was probably beginning, as the nases were rather wider than usual in a child of his age. The discharge seemed to come from the nasal vault, but not from any accessory sinus. The condition was promptly relieved by cleanliness (spray), neglect of which causes a return of the discharge, which, during the summer, became flaky if neglected. I have seen this child recently, through an attack of acute otitis, and found the nose in quite a healthy condition.

Arthur, aged nine, brother of Clarence, had, for the same length of time, noticed an offensive nasal discharge. There were creamy flakes of pus on the middle turbinated body, and no evidence of organic change in the mucosa. The trouble yielded in less than a

month to careful instrumental cleansing and an alkaline spray, with applications of glycerole of iodine. He is reported to me as continuing well.

Katherine, aged eleven, was seen with her two brothers, and had a nasal discharge of some years standing. There was secretion of pus, which formed in creamy flakes and crusts on the middle turbinated body, especially the right. There was well-marked atrophy of the mucous membrane in both nares, but only occasionally any odor. The mucous membrane was tender and bled easily. I treated this case carefully for some weeks, with cleansing sprays, glycerole of iodine, tri-chlorocetic acid, europhen, etc., *including* tri-kresol-iodin, without benefit, except to keep the crusts away. This she continues to do with a spray at home, having discontinued treatment.

These cases seem to me to be, as I stated before, different steps in the same process, which goes steadily from a rhinitis, characterized only by a purulent discharge, to one characterized by atrophy of the Schneiderian membrane. The three boys represent the former, the girls the latter stage. This may be due to the fact that females are especially susceptible to the disease, as well as its longer standing in them.

Continental Building.

REFERENCES.

1. J. N. Mackenzie.—Transactions Am. Laryngolog. Assoc., 1897. Burnett's System of Diseases of Ear, Nose and Throat, Vol. I.
2. Casselberry.—Transactions of Am. Laryngolog. Assoc., 1897.

The Treatment of Common Colds.

Dr. Blondel recommends in the early stages the following treatment:

℞ Tincture of aconite root ..... 15 drops.
Tincture of ipecac ..... 2.5 drachms.
Menthol } aa ..... 1.2 grains.
Saccharin }
Alcohol ..... 10 drachms.
Syrup of tolu ..... 4 ounces.

Sig: Two or three teaspoonfuls to be taken at intervals of one hour after the two principal meals of the day. (*Revue de Therap.*)

EMPYEMA OF THE ANTRUM OF HIGHMORE.

BY E. W. ROUGHTON, B.S. LOND., F.R.C.S. ENG.

Senior Assistant Surgeon and Surgeon in Charge of Throat and Ear Department, Royal Free Hospital; Hon. Visiting Surgeon, National Dental Hospital, London.

The antrum of Highmore is one of the accessory air sinuses of the nose, and its mucous lining is in direct continuity with the nasal mucosa. It is, therefore, not surprising that suppurative affection of the nose should lead to formation of pus in the antrum; the wonder is rather that the antrum so frequently escapes.

Although physiologically the teeth have nothing to do with the antrum, anatomically and pathologically, they are closely related, inasmuch as the roots of the upper molars are always near the floor of the antrum, and sometimes even perforate it; moreover, an alveolar abscess starting from these teeth frequently opens into the antrum. It is difficult to say whether empyema is more often of nasal or dental origin. Opinions differ, inasmuch as the nasal cases find their way to the rhinologist and the dental cases to the dentist.

Clinically, cases of empyema antri may be divided into two great classes, those with patent ostium and those in which the ostium is blocked. The former is the more common condition and the one to which I shall limit my subsequent remarks.

In most cases of empyema the patient complains of a discharge from one side of the nose. A unilateral purulent discharge should always suggest to one's mind foreign body and empyema of the antrum, the former being more common in children and the latter in adults. Of course, empyema may be bilateral, and there are other causes of unilateral nasal discharge, but that does not affect the value of the aphorism.

The nasal discharge in empyema is usually unilateral and affected by posture. In the recumbent position it runs into the throat, and is expectorated or swallowed. In the erect position the pus may pass into the throat or may appear at the anterior nares or may come away when the patient blows his nose. It runs away more copiously and freely when the head is inclined forward and toward the unaffected side. In some cases the discharge is swallowed and the patient is not aware that he has a nasal discharge, and the nature of the case is apt to be overlooked or mistaken for dyspepsia.

A purulent discharge from the nose always calls for careful exam-

ination by speculum and light. If the pus comes from the antrum it will be found in the middle meatus under cover of the middle turbinated bone.

In such cases the pus should be wiped away and the nose again examined after the patient has hung his head down and toward the unaffected side for a few minutes. If pus is found again in the same situation, it very probably comes from the antrum, but it may come from the frontal sinus or fronto-ethmoidal cells.

As it is not usually possible to make a definite diagnosis of empyema antri simply from the character of the nasal discharge, other methods of examination are made use of.

These are:

(*a*) Transillumination of the face.
(*b*) Catheterization through the ostium maxillare.
(*c*) Percussion of the teeth.
(*d*) Exploratory puncture.
(*e*) Examination of the upper teeth.

(*a*) TRANSILLUMINATION OF THE FACE.

Transillumination is performed in a dark room by placing a small electric lamp inside the mouth. The facial bones being to some extent translucent, the face is illuminated and sometimes the pupils give a double reflex and light is doubly perceived by the patient. When one antrum contains pus, the affected side is less translucent than its fellow; the difference is not visible at the inner part of the lower eyelid. This method of examination is a useful aid to diagnosis, but is not in itself conclusive, inasmuch as antri vary in their translucency, and sometimes the two sides of the face may be irregularly translucent in health. Both sides of the face, at times, remain dark; this may be due to the presence of bilateral empyema, unusual opacity of the bones or insufficient candle-power in the lamp.

(*b*) CATHETERIZATION.

Catheterization of the antrum through its ostium is possible, but has not hitherto been found of much practical value.

(*c*) PERCUSSION OF THE TEETH.

I have sometimes noticed that on rattling a steel instrument against the upper teeth, the note yielded on the affected side is lacking in resonance and more like that given by the lower teeth, which are not, of course, in relation with any air-containing cavity.

(*d*) EXPLORATORY PUNCTURE.

Exploratory puncture, when it yields a positive result, of course, settles the diagnosis. The puncture may be made through the empty

socket of a tooth, through the canine fossa or through the inferior meatus of the nose. Antiseptic precautions should be used so as to avoid setting up suppuration in a healthy antrum.

(*c*) EXAMINATION OF THE UPPER TEETH.

It is important that the upper teeth should be carefully examined. A carious first molar is very likely to be the cause of the trouble. It must be remembered that any tooth in the upper jaw may sometimes involve the antrum. It is also important to bear in mind that a tooth which is quite free from caries may have a dead pulp and an alveolar abscess at its root. Such a tooth may mislead anyone not familiar with diseases of the teeth.

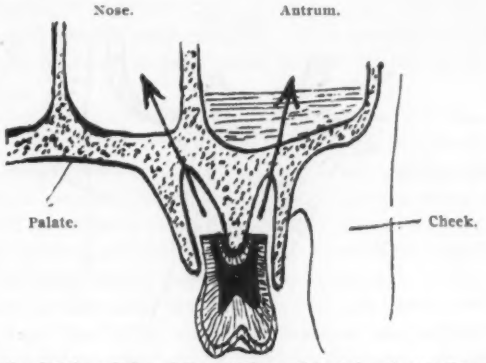

Figure 1. Showing the relation of the palatine and buccal sockets to the antrum and nasal floor.

TREATMENT.

The indications for treatment are:

(*a*) Removal of cause.
(*b*) Evacuation and drainage of pus.
(*c*) Antoseptic irrigation.
(*d*) Removal of morbid tissue, when present, from the antrum.

(*a*) REMOVAL OF CAUSE.

This necessitates treatment directed to the nose or teeth, the details of which need not be further considered in the present paper.

(*b*) DRAINAGE.

The antrum can be opened and drained through the nose, through an empty alveolus or through the canine fossa.

With many rhinologists the nasal route is the favorite method of draining the antrum. I have no experience of this method, as

most of my cases have been of dental origin, or have been sent to me by dentists. I have used the alveolar method of drainage almost exclusively. Even when the canine fossa operation is likely to become necessary, it is advisable to establish an alveolar drain, because an opening in the canine fossa, although well adapted for cleansing out the antrum, is unsuitable for drainage. Should the teeth be sound, the drainage should be provided for through the inferior meatus of the nose.

The alveolar opening may be made with one of the different forms of perforator sold for the purpose, or by means of a burr worked with the dental engine. The anterior buccal socket should be selected. It is possible to open the antrum through the inner or

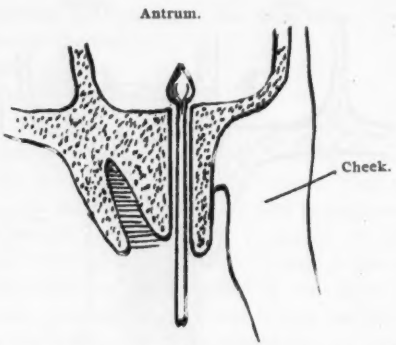

Figure 2. Method of measuring length of alveolar perforation.

palatine socket, but it is also possible to perforate the floor of the nose by mistake. (Fig. 1.)

When the opening has been made, an efficient drainage tube must be fitted and attached to the adjacent teeth. There are many kinds of alveolar tubes, most of them useless. To be efficient, an alveolar tube should have a lumen of not less than an eighth of an inch, should be the proper length and should have a plug which can be inserted at meal-times. The tube should be of such a length that its upper opening is flush with the floor of the antrum. The length of the alveolar perforation (and therefore of the tube that is to be fitted) can be measured by means of a small *bougie à boule* (Fig. 2). The head of the bougie should be just small enough to pass easily into the antrum; on withdrawing it, the finger at once detects when the head impinges on the upper end of the canal. The thumb-nail be-

ing then placed on the bougie opposite the margin of the gum the instrument is withdrawn and the length from the nail to the neck of the bougie carefully measured.

(*c*) ANTISEPTIC IRRIGATION.

This must be done by an instrument such as Heath's antral irrigator. The lotion used should be antiseptic and astringent, but not too irritating. It is often necessary to change the antiseptic from time to time.

The patient should sit before a looking-glass whilst injecting. The process should be stopped as soon as the fluid returns through the nose clear. The injection should be performed at first twice daily. When the lotion comes away clear at once the interval between the injections may be doubled. When the interval has reached a fortnight and still there is no pus, the case may be regarded as cured and the tube removed. If a cure has not been effected in two or three months resort should be had to the canine fossa opening.

(*d*) REMOVAL OF MORBID TISSUE FROM THE ANTRUM.

In some cases the mucous membrane of the antrum is greatly thickened, or polypoid, or there are deep septa passing across the antrum which prevent efficient drainage. In such cases alveolar drainage will not effect a cure. The antrum must be freely opened through the canine fossa and its interior examined with a small electric lamp, and its lining membrane thoroughly curetted.

It is well to remember that all cases of empyema antri are not alike. In some the lining membrane secretes pus but is not otherwise altered. These cases will be cured by drainage. In others the antral lining is so altered that it is incapable of being restored to the normal condition. For these curettement is necessary. There is yet another class of cases in which the antrum is not a producer but simply a receiver of pus which has been generated in the frontal sinus or fronto-ethmoidal cells. In these cases recovery cannot be expected until the source of the pus has been detected and efficiently treated.

THROAT AND NOSE AFFECTIONS AND THEIR RELATION TO GENERAL MEDICINE.*

BY WALTER F. CHAPPELL, M.D., M.R.C.S., ENG.

Consulting Laryngologist to the Loomis Sanitarium, Liberty, N. Y.; Surgeon to the Manhattan Eye, Ear and Throat Hospital, New York.

Throat and nose affections are usually dependent on some condition of the general system, and not due to local causes alone, as so often claimed by many specialists. For brevity and clearness we will consider these affections from the following standpoints:

1st. Their relation to general diseases, such as contagious affections, rheumatism, syphilis, etc.

2nd. Their relation to chest affections.

3rd. Their relation to digestive system.

4th. Their relation to nervous system.

RELATION TO GENERAL DISEASES.

(*a*) Contagious affections have a primary and secondary effect on the upper air tract. The former evident by local rashes, membrane, etc. The latter by destructive processes which frequently cause permanent injury or initiate an atrophic rhinitis, enchondroma, perforation of nasal septum, recurring epistaxis, in fact, many conditions for which we are consulted date their origin to one of the contagious diseases of the upper air tract. Is sufficient care and treatment employed in the acute and convalescent stages of scarlet fever, measles, diphtheria and other similar affections? The family physician should watch children under his care, so that adenoid vegetations in the naso-pharynx, enlarged tonsils and any other unhealthy condition of the mucous membrane could have immediate attention. If this was generally done, the number of cases and deaths from diphtheria and scarlet fever would materially diminish.

(*b*) Rheumatism and gout are frequently manifested in the upper air tract, but more as local manifestations of a latent diathesis than as part of a general rheumatic attack. Extreme pain and stiffness of the surrounding tissues and marked redness of the mucous membranes characterize the nature of the attack. Prompt and persistent internal medication are the only means of obtaining any relief.

(*c*) Syphilis of the upper air passages has some features deserving special attention. Primary infection of these regions is not un-

*Author's Abstract of Paper read before New York State Medical Society, Jan. 25, 1898.

common and may be mistaken for diphtheria. In one case under my care the Klebs-Lœffler bacillus was found in the throat by the State Board of Health and pronounced diphtheria, but subsequent observations proved it to be primary chancre.

Congenital syphilitic ulcerations of the nasal septum and soft palate and larynx are not infrequently mistaken for tuberculosis and malignant disease.

RELATION TO CHEST AFFECTIONS.

The structural relation and position of the respiratory organs makes it extremely probable that their affections would be interdependent. How often an acute rhinitis or laryngitis spreads downward to the trachea and bronchi, or an acute bronchitis spreads upward to the pharynx and nasal passages.

Tuberculosis of the larynx, with but few exceptions, has been preceded by a primary pulmonary invasion. Two cases of primary infection through the upper air tract have come under the writer's observation. Neoplasms of the chest always result sooner or later in some structural or functional change in the upper air tract.

RELATION TO DIGESTIVE SYSTEM.

Few more frequent causes of throat and nose derangement exist than those resulting from some disturbance of the gastro-intestinal tract. The usual local throat manifestations are: venous congestion, mostly around the base of the tongue, and glandular enlargement also chiefly on the posterior pharyngeal wall and base of tongue. These conditions in some instances cause great tenesmus in the throat, and in a few instances serious laryngeal spasms. Increased glandular tissue seems in some instances to be influenced by the uric acid diathesis. In the latter cases, suitable remedies must be administered to correct the diathesis, otherwise the glandular enlargements recur. Regulation of diet, exercise and mode of living is necessary in every case when the digestive symptom is at fault and will in most instances be all that is required.

RELATION TO NERVOUS SYSTEM.

Aphonia, œsophageal stricture and dysphagia of hysterical origin are not uncommon. Reflex coughs and headaches sometimes occur, but are not so frequent as supposed. Headaches of nasal origin result usually from improper drainage or disease of some of the numerous sinuses connected with the nasal chamber. Hay fever and intermittent rhinorrhœa are the most frequent and important nasal affections connected with a general neurosis. Remedies which influence the vaso-motor system are specially indicated and can be relied upon to give more relief than local treatment. Cinchonidia salts have

a profound influence over the vaso-motor system of the upper air tract. There are but few cases of hay fever which are not favorably influenced by cinchonidia in some form.

In concluding this paper, I wish to mention that, owing to the short time at my disposal, there are some general physical conditions caused by nasal diseases which have not been mentioned. I think, however, that enough has been said to show that we must not confine ourselves along too narrow lines in this specialty. General practitioners must not treat lightly the effect of nasal and throat affections on the general health, neither must throat specialists forget that internal medication will meet the requirements of many of their cases.

7 East Fifty-fifth Street.

Rapid Extirpation of a Large Naso-Pharyngeal Polypus, With Extra-Cranial Prolongation, Without Bony Resection.

In a patient of thirty years, suffering from naso-pharyngeal polypus, Dr. Isch-Wall, of Paris, operated by the method of Doyen. (*Revue Hebd. de Laryng., d' Otol. & Rhin., Jan. 22, 1898.*) A partial removal of the tumor had already been made with successive cauterizations, but the tumor had recurred and had now invaded the mouth, nose, maxillary sinus, and orbital and temporal fossa.

After chloroform anæsthesia, the patient was placed in the Rose position and the point of implantation found to be the basilar process. The tumor was then seized with the forceps in one hand and with the index finger of the other, the prolongations in the nostrils, orbit and sinuses freed. The temporal prolongation only remained, this being held by a small pedicle. The bleeding surface was at once tamponed and the hemorrhage arrested. In order to reach the temporal prolongation, the author incised the tissues and made a section of the zygomatic apophysis. Two months later the cure was found complete. SCHEPPEGRELL.

LARYNGEAL VERTIGO.*

BY J. C. MULHALL, M.D., ST. LOUIS, MO.

On December 5, 1896, a gentleman, Mr. W. L. Wright, consulted me concerning a cough from which he had suffered many years, but which lately had been attended with alarming symptoms.

He was aged forty-seven, weighed 173 pounds, and was five feet four inches in height. His complexion was florid, his hair quite gray, his manner placid and temperament phlegmatic. His pulse was ninety, a trifle irregular, small and compressible. His urine acid, specific gravity 1.029, loaded with phosphates. He led a quiet, regular and sedentary life, being curator of a large estate; did not use tobacco or alcohol, took extremely little exercise, but ate largely of nitrogenous foods; meat three times daily, especially beef, beefsteak and mutton, eggs in abundance, large quantities of bread and potatoes and cooked fruits. His flesh was soft and flabby; his chest narrow, but abdomen large and pendulous. All his visible mucous membranes were equally hyperæmic, that of his larynx not more so than the gums or conjunctiva. He was plainly in a condition of what I, for convenience sake, style hypernutrition. For years his bowels moved five or six times daily, the amount, however, in toto not exceeding one full evacuation, as is his habit to-day. He also passed urine very frequently, but not in large amount. Commencing at the age of seven, after an attack of scarlet fever, he had been the subject of winter cough, which almost completely disappeared with warm weather, or, as questioning elicited, when his skin began to act more freely. This cough was paroxysmal, sometimes but two or three attacks in a day, sometimes twenty, the paroxysms ending with the ejection of a small amount of viscid white sputum, which had never become yellow, therefore not of inflammatory origin—not a bronchitis, but the result of bronchial hyperæmia of varying intensity. For the last twenty-five years he has been the subject of hay fever, and for the last nine years, during the latter weeks of the hay fever season, of asthma.

From this history it was apparent that in addition to his state of hypernutrition there was defective elimination, and that the principal irritant in the blood was uric acid.

In October and November of 1895 he noticed that on several oc-

*Read before the St. Louis Laryngological and Otological Society, Jan. 12, 1898.

casions his fits of coughing were accompanied or followed by vertigo, so that frequently he, for a few moments, clung to the nearest support. In December of that year, whilst seated in the train on his way to his home at Webster Groves, he suffered one of his usual cough paroxysms, and found himself cold and his clothing quite wet. He asked his companion in the seat for an explanation, and was told that he had fallen over on him, ceased to breathe, became very red in the face, had excited alarm about him, and had been drenched with ice water to restore consciousness. In this winter, that of 1895–96, he had three more such attacks. For the three months preceding his visit to me (December 6, 1895) he would return home from his day's work quite exhausted and somnolent, so that if, for example, supper was not quite ready, he would fall asleep sitting upright in a chair. He had also had, with hardly exception, every evening, between six and nine, sometimes at the supper table, usually afterward, an attack of cough, followed by complete unconsciousness. For a description of an attack I am indebted to his very intelligent wife. No action in particular attracts her attention, but experience has taught her and her daughter to watch him carefully. She notes first a peculiar, indescribable facies, his eyelids dilate, the eyeballs roll upward, become dull and listless. This facies lasts, sometimes, a full minute or two, long enough, frequently, to enable them to drag him, in his chair, to the window, which they open and, in addition, vigorously fan him. She thinks him semi-conscious, and by this treatment has been enabled to ward off the next phenomena, which consists of, almost invariably, three short, dry coughs, each lower in pitch than the preceding one, followed invariably by complete unconsciousness. He ceases to breathe, his face becomes bluish-red, his whole body becomes somewhat rigid, and thus he remains from five to twenty seconds, when a long inspiration takes place and the attack is over, except that on a number of occasions there has followed, for two or three minutes, mental confusion. These attacks have very seldom followed violent coughing, but she has never known him to have an attack without the preceding three gentle dry coughs. There has never been an involuntary cry, escape of urine or biting of the tongue, or convulsive movement. Several cases have been reported in which there was first a laryngeal or sub-laryngeal tickling, but my patient states that he has never experienced this or any other morbid sensation in the throat at any time. His family history is perfect, and beyond the history I have given his health has been excellent. Physical examination yielded no evidence of disease in any part of the body. At most, there was a gentle hyperæmia of

the upper respiratory organs. In accordance with my theory of the pathology of his case, namely, that there occurred uric acid explosions, producing either capillary spasm or paresis in the respiratory centers, thus in turn producing not only spasm of the glottis, but, as I wish to insist on, spasm of all of the muscles of respiration. He was placed upon anti-lithæmic treatment, the details of which it is of no import to mention here. It consisted greatly of rigid diet, cold friction to the skin, calisthenics, and the substitution for a certain amount of intellectual work, manual labor in the open air. By February 22 he had lost ninteen pounds, and yet had gained quite considerably in strength of mind and body. He had but two movements from the bowels daily, instead of six; his urine was straw-colored and transparent; his asthma had disappeared; he coughed fifty per cent less than he had in twenty years, and it had lost its dry, paroxysmal nature, the sputum being ejected without effort. He had, from December 6th to the 15th, but two of his laryngeal attacks, and since that time not one. He was discharged from treatment, but instructed to so diet and exercise as to maintain the muscular equilibrium he had secured. I did not see him again until October, 1897. He had been perfectly free from attack, and related an interesting history bearing upon the diagnosis of the uric acid diathesis. For many years his hay fever had invariably commenced on August 16, but he had always, for a few days before, had certain prodromata. Last summer he did not leave for his annual vacation until August 21, and up to that date had not even had the usual hay fever prodromata. Unfortunately, for the sake of this history, he went to his usual resort in Canada, one which is exempt from hay fever, so that whether he would have escaped his hay fever or not, cannot, of course, be stated.

I did not see the patient again until October 8, 1897, when he applied for relief from a mild attack of subacute bronchitis, which yielded very quickly to an apomorphia expectorant mixture.

I have seen him again lately. He states that he has not had a single attack of cough, followed by unconsciousness, but that he has had several mild attacks of vertigo following cough. He has been overworked, has neglected his calisthenics, but has maintained the reduction in weight. He still has remnants of his old winter cough, but has suffered no attack of the peculiar spells of short dry coughs which have preceded his attacks of unconsciousness.

Since 1876, when Charcot first drew attention to the clinical picture, of which my case is a reproduction, about fifty cases have been reported. The salient features are, however, so alike in all reports,

the group of symptoms so peculiar and characteristic, that there is formed a distinct morbid entity, and yet not entitled to any rank in nasology. Baptized by Charcot laryngeal vertigo, the title can only be accepted as one of convenience, since vertigo is but a symptom of many diseases, and the larynx in the majority of cases has been found absolutely normal. In a few cases there existed laryngeal hyperæmia, and in but one case, that of Sommerbradt, all symptoms vanished subsequent to the removal of a laryngeal polyp, but in this same patient, fifteen years before, epileptic attacks had ceased after the removal of a cicatrix from the dorsum of the hand.

The essential difference between this disease and the laryngeal crisis of locomotor ataxia is in the cardinal laryngeal symptom. In tabes the cyanosis and unconsciousness only prevail after the glottic spasm has existed quite a time, just about the same length of time as would arise from ordinary strangulation, whereas in laryngeal vertigo the unconsciousness and cyanosis appear immediately after the laryngeal symptom, be it cough or laryngeal tickling, or both, so quickly, indeed, that mere glottic spasm cannot alone explain the vertigo or unconsciousness.

The attack so often resembles le petit mal of epilepsy that several authors, notably Gray and Schrötter, describe it under that title. Half the number of patients have laryngeal or sub-laryngeal tickling—a sensory aura—whilst all, with hardly an exception, have two or three very gentle cough explosions immediately preceding the loss of consciousness—a motor aura—yet there are some notable differences. Out of the fifty-three cases reported, but three have been in females; there has been marked absence of heredity, and in nearly all I know of no case reported in children.

All cures have quickly followed various therapeutic measures. In a very few the tongue has been bitten, and there have been slight convulsive movements, but never true clonic spasms; never involuntary passage of urine; never the epileptic cry; never part epileptic phenomena, except in a few cases a slight and transient mental confusion, so that there exist but the two symptoms common to both, an aura, quickly followed by insensibility, a clinical picture which has appeared after douching an ear, or the nose, or adding another epileptic sign; convulsions have been seen in laryngismus or whooping cough.

Out of seven cases collected by Schadewaldt, of Berlin, six were pronounced alcoholics, and in most cases reported the patients have been plethoric. Schadewaldt also reports the only death, and is one of the very few who has been an eye-witness of the attacks. He

relates the difficulty of analyzing the symptoms, because the whole attack is so quickly over. He has seen this patient, as I have mine, in tremendous paroxysms of cough, and yet not followed by insensibility. At most there was but slight vertigo. The disease in others, however, has followed violent explosions of cough. In the lethal case of Schadewaldt there was but slight spasm, the usual gentle cough, insensibility and death. The disease had disappeared in this case for twenty months. The author calls attention to the fact that perhaps there are many more deaths than are reported. Suppose, for example, this patient, after recurrence from what had seemed cure, had, after relapse, applied to some other physician who had not recognized the character of the case, or had he been found dead, the ultimate outcome might never have been known.

What, then, is the mechanism of events in laryngeal vertigo, or as most authors now call it, ictus laryngis, since it is not with that stage or symptom of the trouble—vertigo—with which we are dealing, but where there is a stroke, implying insensibility?

There are a few expiratory outbursts, namely, the gentle coughs, and in this attitude, that of a closed glottis, respiration instantly ceases. Not only is there addular laryngeal spasm but there also occurs that which no author seems to have mentioned, namely, spasm of the great abdominal muscles and the diaphragm in the expiratory attitude. Whether there is simply glottic spasm, or with it associated spasm of the other respiratory muscles I have mentioned, makes a very great difference in the intrathoracic pressure. If any one of my audience will take a deep breath and then simply hold it, he will find that the face becomes turgid very slowly, that the pulse will become slower, but hardly change in volume, whereas let him take a deep breath and then throw his diaphragm and great abdominal muscles into expiratory spasm, the glottis will close, his face will at once become turgid, the pulse slower and feebler and finally disappear, and syncope may occur. These experiments were first described by Weber in 1851. On one occasion, after self-experimentation, he actually became unconscious, there were muscular twitchings in his face, and some mental confusion.

Dr. F. T. Knight, of Boston, in an article on laryngeal vertigo, published in 1886, recalling these experiments, following McBride, explains the symptoms by saying that "there is a direct disturbance of the cerebral circulation by compression of the large blood vessels and even of the heart itself." He recalls that wind-instrument performers often suffer vertigo—that rapid respiration may cause sufficient anæsthesia to admit of the painless extraction of a tooth.

Charcot makes it a condition analogous to Meniere disease and stomachic vertigo. He reminds us of the experiments of Paul Bert, where, through irritation of the pneumogastric, respiration and other motor phenomena may completely cease and death follow. He concludes that the upley cycle is contripetal, and the starting point some irritation of the superior laryngeal nerve at its distribution in the larynx. Just as in hay fever the sensory irritation is in the nose. In the one case the resultant motor result is glottic spasm and in the other sneezing. But I wish to add that just as in hay fever the efferent impulse may be conveyed to the bronchi and asthma result; so in laryngeal vertigo—the efferent impulse may produce not only glottic spasm, but also spasm of the great abdominal muscles and diaphragm.

Against Charcot's explanation may be mentioned the fact that in these very patients it is exceptional to find the attacks follow violent attacks of coughing, and also the clinical fact observed by the wife of my patient that certain phenomena preceded the laryngeal tickling, as the gentle explosions of cough, which precede the unconsciousness. She observed a certain facies, the dilatation of the lids, the upturning and glazed expression of the eyes, to precede the cough. As I have already stated, no medical man except Schadewaldt has had the opportunity of witnessing and analyzing the attack. It may be found that if those who see the patient in the attacks be instructed to look for the facial expression I have mentioned, that it may always be found to precede the laryngeal tickling.

My own view is that the first phenomena is central, most probably a vaso-motor spasm about the respiratory center, and that it is the central irritation which causes first the laryngeal tickling or short, dry coughs, and then the glottic spasm, as well as that of the great abdominal muscles. The insensibility follows instantly the glottic spasm and cannot therefore be due to the cerebral turgescence caused by the intrathoracic pressure. In a word, therefore, I believe that all the symptoms are caused by a functional disease of the respiratory center, and in my patient, at least, from uric acid storms about the vagus centers of a man suffering nervous exhaustion.

THE ARTIFICIAL MEMBRANA TYMPANI.

BY ARTHUR H. CHEATLE, F.R.C.S., ENG.

Surgeon Royal Ear Hospital, and Senior Aural Clinical Assistant, King's College Hospital, London.

One of the most brilliant benefits of aural surgery is the improvement in hearing obtained by means of an artificial drum. Sometimes a patient has his life completely altered by it, for from being an introspective, silent and more or less morose man, he is converted into a bright and cheerful companion, and able to take his part in general conversation, which makes up such a great part in the happiness of home and social life.

At the same time no method of treatment has been so much abused. Advertisements appear in the daily papers offering to cure all deafness and noises in the ears by means of ear-drums, and as there is no class of patients as the deaf so ready to fly to anything which offers hopes of improvement, an enormous number are sold, for the price of one guinea apiece, without regard to the nature of the deafness, and of course without a skilled examination. As might be expected, the results in the great majority of instances are negative, if not positively harmful.

The cases in which improvement is obtained are those of chronic middle-ear suppuration where the discharge is slight, or has ceased, but in which either a large portion of the membrane below the short process of the malleus has been lost, or the whole of the incus, or the descending articular process, has been destroyed by caries. I shall not deal with those cases in which operative measures, such as removal of the malleus and incus, for caries of their heads, have exposed the head of the stapes.

The reasons why an artificial membrane is successful in the two class of cases will be readily appreciated if we briefly consider the functions and anatomy of the membrane and chain of ossicles.

Figure 1 represents an intact membrane; the handle of the malleus, from the short, rounded process above to the tip below, is embedded in it. Above this short process and the slight folds which pass backward and forward from it is a thin loose membrane (membrana flaccida) which is not attached to the malleus, and practically takes no part in receiving and transferring vibrations. The portion below

the short process and folds (membrana tensa) is thicker and more stretched, and, having the handle of the malleus imbedded in it, is thus able to vibrate and transfer the vibrations to the chain of ossicles and so to the labyrinth. The triangular light portion running downward and forward from the malleal extremity is due to the reflection of the light thrown in for examination. If this membrana tensa is lost it can be appreciated that besides the malleus having lost its vibrating medium, there is also a general loosening of the ossicular chain, and that a support of some sort will help in the transference of sound waves.

The head of the malleus lies above the long edge of the meatus in the topmost part of the middle ear (the attic), and articulates behind with the body of the incus (or anvil). This incus has a process which passes backward and is more or less fixed, while another passes downward, behind and parallel to the malleus, loosely articulating

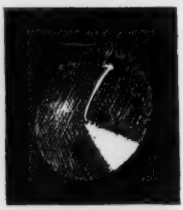

Fig. 1. Right Ear.

at the inner part of its tip with the head of the stapes (or stirrup), which lies horizontally with its base in the oval window of the outer labyrinthine wall, the ossicular chain thus being able to transfer vibrations to the labyrinth, but the connection being cut across if the incus or its articular process is lost. Caries of the incus, especially of the articular process, is common, as it depends so much for its blood supply on the lining membrane surrounding it. The perforation in these cases is usually in the posterior superior segment, but may extend upward or downward. The artificial drum, being placed on the exposed head of the stapes, takes the place of the drum and the two larger ossicles.

Figure 2 represents the middle ear after removing the membrane. The neck, short process and handle of the malleus hang suspended in the center; behind is the articular process of the incus; the stapes lying horizontally is shut out of view by the articulating tip and the stapedius muscle, which is seen as a white sheath running backward. Of course, in both varieties, if there is labyrinthic mischief or deep

adhesions fixing the stapes, an artificial drum will not improve matters. These complications should be excluded, as far as possible.

The accompanying figures represent cases in which an artificial drum has been successful and illustrate the varieties above described.

Figure 3 shows a large heart-shaped loss in the membrana tensa.

Figure 4 shows almost total loss of membrana tensa, exposing the stapes and incus joint.

Figure 5, a case of caries of the incus, the perforation in the posterior superior segment. Head of stapes not visible.

Figure 6. Perforation in posterior segment. Articular process of incus lost. Head of stapes with stapedius muscle exposed.

Figure 7 looks obscure, but it is represented to emphasize another class of the second variety of cases. The whole drum has been lost and its place taken by a cicatrix. There is no trace of the malleus or incus, but the stapes must be in position.

If a patient has one ear normal, the bother of using an artificial drum is not advisable unless his business or pleasures demand good bilateral hearing.

An extremely useful guide as to chances of improvement being ob-

Fig. 2. Right Ear.

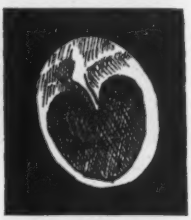

Fig. 3. Left Ear.

tained is often given by the patient, who says that immediately after syringing the hearing is greatly improved, but, in a short time, it is as bad as ever. This phenomenon is explained by the bracing up of the ossicular chain, produced by the syringing, and by the support given by some of the lotion which remains temporarily in the deep meatus. With regard to the variety of artificial drum which should be used, it is obvious that it should cause as little irritation as possible, that it should be of easy management to the patient, and that no septic infection should be introduced by it. In 1841 Yearsley suggested a cotton-wool pellet with a string attached, but as this was apt to get out of position, wool in the form of a wick was substituted, and this, if properly used, fulfills all that is required.

It should be made in the following way: Careful measurements of

the hearing power, both to voice and watch, having been made, the surgeon's hands are well washed and purified. A thin layer of double cyanide cotton-wool is then evenly pulled out and laid in some hot antiseptic lotion (such as one in sixty carbolic with a small quantity of glycerine added to prevent drying of the wick when in situ), and the irritating soluble cyanides, which are present in the wool, well washed out; it is then evenly rolled up and should make a fairly firm wick which should not completely fill the meatus, and should reach from the middle ear to just inside the cartilaginous meatus. This wick is then gently introduced by means of a pair of forceps down to the middle ear through a wide, short speculum, and under a good reflected light. In the first variety of cases it may act better if it is placed on the ossicles, but sometimes greater improvement occurs by placing it over the perforation. In the second variety, the head of the stapes is necessarily the only position for it.

Fig. 4. Left Ear.

Fig. 5. Right Ear.

After introduction the hearing should be again tested. If successful the patient at once notices the improvement. If no improvement occurs, removal and careful reintroduction in another position should be made and result noticed; if no improvement is present after three or four such introductions, the examination should be postponed for a month or two. If slight improvement is obtained, it is for the patient to say if it is enough to help him.

Having obtained improvement the surgeon should give full instructions to the patient in the making and using of the wick. It is best to see him make and introduce one and several lessons may be necessary. After a little practice the patient can introduce it into the best position much better than the surgeon. A straight pair of untoothed forceps should be ordered him for introduction.

The following rules should be insisted upon:

1. At first the period for which it is worn should be short and

then gradually increased. An hour a day one week, two hours for the next week, and so on, until it can be comfortably borne all day.

2. It should always be removed at night, the ear being gently syringed after removal and before introduction with a trustworthy, but not irritating, antiseptic solution, such as saturated solution of boracic acid.

3. If pain, bleeding, increase of discharge, or any complication arises, it should be left out *at once;* to be gradually worn again after such complications have well subsided.

If used in this way, not only is the hearing benefited, but, acting as a dressing and protection to the middle ear, the wick is a good

Fig. 6. Right Ear.

Fig. 7. Left Ear.

treatment for the slight suppuration which may exist. Occasionally, after using one for some time, the efficacy, as regards hearing, disappears without any apparent cause; a period of rest, followed by retrial, will usually overcome this.

All artificial drums that have a solid handle, which must lie in the meatus, are to be avoided, as the least blow on the ear will drive the drum against the delicate middle-ear structures; those sold by advertising quacks have this fault. Those, again, which lie against the middle ear without any attachment for withdrawal, are not advisable, as they may remain in the ear, the patient, from forgetfulness or carelessness, leaving them in to soak up discharge and become a putrifying mass, and they also necessitate groping about in the deep meatus with a pair of forceps every time they are removed.

A FEW CLINICAL AND ANATOMICAL POINTS RELATING TO THE EAR.

BY ARTHUR J. SHAW, M.D., BOSTON, MASS.

At the point in the posterior and upper part of the external auditory canal, where the squamous portion of the temporal bone turns in to form the posterior wall of the auditory canal, is a small tubercle, which varies in size, called the spina meatus—this is our starting point for measurements in opening the mastoid, as will be mentioned later. The posterior root of the zygoma is prolonged backward to continue into the linea temporalis; below it lies the mastoid. Near the posterior part of the mastoid is the mastoid foramen, which leads to the lateral sinus, its position being various.

We can, on looking at a mastoid, tell only in part with what kind we are dealing.

In a mastoid of considerable size there are usually many cells, still it may contain a deep sinus and be markedly sclerosed. Mastoids are divided into three classes:

1. The pneumatic, abounding in cells or cell space. 2. The diploic, smaller cell-spaces and a partly sclerosed condition. 3. The sclerosed mastoid where the process is solid bone; these last are very hard to deal with, as usually the sinus is deep and far forward; there are no arbitrary divisions. The cells lead to the antrum, and the antrum through the additus to the posterior and upper part of the middle ear.

The mastoid antrum runs outward and backward, lying immediately beneath the tegmen. In front is the auditory canal, below are the mastoid cells, behind is a portion of the sinus, and in its floor lie important structures, so care should be taken not to wound it.

The lateral sinus forms the inner and posterior wall of the most of the mastoid, and in the sclerosed or tendency thereto approaches, as mentioned, nearer the surface and more anterior; the bone lying between it and the cells is usually solid; there are very rare cases where it has been found perforate.

Then in opening a mastoid, make a curving cut, for it exposes more surface and heals more kindly and smoothly than a straight cut—push the ear forward, but do not peel the periosteum too much from the canal, as this causes delayed healing—find the spine of the meatus, go five millimeters behind and three below this point, re-

membering the direction is toward, forward and slightly upward. Open the cortex with a chisel, better slanting it, and striking lightly; the cortex is usually thin, averaging one to two millimeters; this enables one to pass in a director curved at the tip and locate where the opening leads. You can now chisel the bone easily and freely, curetting out the cells and bone according to the case. It is the first opening that is uncertain, after that the steps of the operation are easy, except in the sclerosed mastoid; it is inexcusable now to open the lateral sinus. The fear of an opened lateral sinus is, I think, rather overestimated. The blood wells up freely, when it is opened, but it is usually easily stopped by a gauze plugging, only there must be strict antisepsis and the operation must be completed; and other ordinary medical precautions followed.

In the external auditory canal, I merely mention the canal of Huschke, which is sometimes found in the tympanic plate of the adult, leading to the glenoid fossa, a canal which is usually closed at five years of age.

Bony Landmarks of the Tympanum.—From our methods of examination there is a tendency to consider the tympanum larger than it really is. Briefly looking at a membrana, we see the manubrium of the malleus extending downward and backward, the short process above with the folds running anteriorly and posteriorly, enclosing Schrapnell's membrane. The membrana is $^1/_{10}$ of a millimeter thick—the posterior superior part is nearest the surface, the inferior anterior farthest. Not considering its smaller curves, one hardly appreciates the amount that the membrana is drawn in at the umbo. The incus is seen running parallel to the manubrium in the posterior superior quadrant, ending about the middle of the manubrium, where it joins the stapes, which can often be seen, its axis running horizontal. Below and posteriorly we see the round window. The measurements from the most prominent part of the promontory to the membrana is a little over a millimeter, the next narrowest point being at the umbo.

The chorda tympani nerve comes into the tympanum in the posterior wall and runs in the posterior pocket, or about in a line with the posterior fold of the membrana, runs between the malleus and incus, being attached to the base or highmost part of the manubrium, continuing forward to emerge at the fissure of Glaser—when cut, the discomfort lasts only a short time.

The jugular fossa forms part of the floor of the tympanum and sometimes it is perforate into the tympanum, so in doing a paracentesis, the knife should not hit the inner wall too hard for it might perforate it; for the same reasons never curette the floor of the tympanum for granulations.

The round window looks backward and has a shelving edge, rather important in some cases.

The floor of the tympanum extends lower down than the membrana and usually has quite a number of cells extending into it slightly.

The Eustachian tube opens into the tympanum high up on the anterior wall, so that it does not drain the tympanum except in certain positions of the head.

In the epitympanic space or attic we have a small space, with the head of the malleus and the incus and their ligaments, which obstruct, partly, its drainage; again, here we may have membranes which add more to the difficulty, as, for instance, from the tendon of the tensor tympani to the anterior wall; in order to treat this ear properly it would have to be perforated.

In closing, a few words about the aqueduct of Fallopius: On the inner wall of the tympanum, where the canal lies just above the pelvis ovalis, its wall is very thin and sometimes even perforate—you can just see the canal ordinarily. So in using a probe or curette, great caution must be used here.

In a horizontal section of the temporal bone, made through the middle of the canal and cutting the promontory through the uppermost part of the round window, shows the facial canal on the lower section to be two millimeters behind the annulus and one and one-half millimeters to the inner side. This will enable one to place the depth of the facial nerve. A section made a little lower down through the lower part of the round window shows the canal to be a little more external, nearly on a line with the annulus and still two millimeters behind. The bone lying between it and the annulus is very dense.

86 Charles Street.

Sodium Tetraborata in Otorrhœa.

A warm 50 per cent solution is to be injected into the canal and permitted to cool, when the tetraborata crystallizes out. In a short time (usually after two weeks) the aural discharge disappears. Stronger solutions may be employed.—Dr. R. Kafemann (*Am. Med. Surg. Bull.*) LEDERMAN.

REPORT OF A CASE OF RUPTURE OF THE TYMPANIC MEMBRANE FROM INDIRECT VIOLENCE.

BY DR. H. W. WOODRUFF.

Professor of Ophthalmology in the Chicago Eye, Ear, Nose and Throat College, and Assistant Surgeon at the Illinois Charitable Eye and Ear Infirmary.

On Christmas day Mr. J. C. fell, striking his right ear violently against a door-knob. He at once experienced great pain, deafness, vertigo and tinnitus. By keeping quiet the pain subsided in about one hour. On the following day he came to my office. The examination showed an extensive rupture of the inferior portion of the drum-head, as shown in the cut. The posterior half of the rupture

extended only through the outer layer, as I have endeavored to show. Through the anterior portion of the rupture, the interior wall of the tympanum was plainly visible. Along the upper margin of the tear there was a trace of blood. At the time of the examination there was no pain or dizziness, but some tinnitus, and a feeling of numbness remained. The tuning fork placed on the vertex is heard best in the injured ear. The ærial conduction is considerably lessened. He cannot hear the watch, and only loud conversation in the affected ear. On the third day after the injury there was some mucous in the middle ear. The edges of the wound were very pale. The feeling of numbness has disappeared. The tinnitus is constant. No treatment was instituted other than the wiping out of the canal with a pledget of cotton, saturated with a bichloride of mercury solution, and the protection of the middle ear with a strip of gauze. No inflation was used. An examination made one week from time of injury showed the condition to be about the same. The edges of

the wound were very white, but there was no discharge. This case is interesting from the fact (1) that the tear is of large extent; (2) that the edges are widely separated and not in contact as some otologists (Toynbee) have said is the usual condition in rupture due to indirect traumatism; (3) very little hemorrhage followed the injury—possibly the membrane was somewhat sclerotic; (4) in the posterior position the cutaneous layer only was divided; (5) the tear is not in the direction of the radiating fibers of the membrane.

Joliet, Ill.

Elephantiasis of the Auricle.

Dr. Haug reports the occurrence of elephantiasis of the right auricle in a girl of twenty years. (*Archiv. f. Ohrenh., Vol. XLIII., part 1, Journ. Amer. Med. Sciences, Vol. CXIV., 1897.*) Ten years previous to the time Dr. Haug first saw the case, the patient had had the whooping-cough, during which hemorrhage from the left ear and extravasation of the blood beneath the integument of the auricle took place. The long diameter of the enlarged auricle, measured from the spina helicus to the lobule, was 12½ cm., and the transverse diameter, from the outer edge of the helix to the antitragus, 7 cm.; the breadth of the lobule was 4½ cm.

A microscopic examination of a small piece revealed that the enlargement of the tissues consisted of a lymph-anglo-fibroma with hyperplasia of the cartilage of the perichondrium. SCHEPPEGRELL.

NEW INSTRUMENTS.

IMPROVED RHINOLOGICAL FURNITURE.

BY EDWIN PYNCHON, M.D., CHICAGO, ILL.

Professor of Rhino-Laryngology and Otology, Chicago Eye, Ear, Nose and Throat College; Late Senior Assistant Aural Surgeon, Illinois Charitable Eye and Ear Infirmary, Chicago.

Convenience in treating diseases of the nose, throat and ear is materially enhanced by the use of seats for both patient and operator, which are particularly adapted for the work. I wish to call attention

Figure 1. Patient's Chair.

Figure 2. Operator's Chair.

to a chair and stool which were the outgrowth of the full appreciation of the preceding proposition, and represent the result of several years' thought and experiment.

Figure 1 shows the patient's seat or chair, and is modified from an Andrew's No. 75 M. stenographer's chair, combined with a so-called "Marshall Field back." The base of the chair has been changed for one giving greater range in elevation, ranging from nineteen to twenty-six inches, so it can be made as low as an ordinary house

chair and as high as may be required in treating the smallest child. The back is made absolutely vertical, so as to compel the patient to remain within easy reaching distance. The back is not adjustable, and is supported by slightly springy bent rods, which give all the rigidity required. This back is not adapted for the support of a head-rest. A head-rest is seldom required when using saws which cut on the pull, or in the use of the electric engine burrs or trephines. In case a head-rest must be used, it is much better to have it attached to some rigid and fixed object, as a door-casing or wall. In ear work, with a pivot chair like this, either ear can be examined or treated with equal facility by swinging the patient around.

The stool (Figure 2) for the operator has the same base as has the chair, hence its range of vertical adjustment is the same, though the seat is of smaller size, being only twelve inches in diameter. In the stool the qualification of high elevation is equally as valuable as in case of the chair, though, while the chair is heightened in direct ratio to the diminution in size of the patient, with the stool the reverse is true, and its greatest height is required with the tallest and longest-legged patients. With this latter genius all the proportions are too liberal for easy reach when ordinary chairs are employed. For example, the knees project so far out that the operator is held at a distance, unless he sits by the side of the patient, and this position I do not find advantageous, as I greatly prefer sitting directly in front of the patient. In addition to the knees projecting far out they are also so high up that unless the operator uses a very high seat he finds himself at great disadvantage. Lastly, the patient with the cumbersome legs is also long from the seat up, and by simply bending backward, as seems natural to do, removes the head so much the further from the operator. Hence in view of the whole combination, in case of the lengthy patient, it seems expedient that the operator should be enabled to get within easy reaching distance, even if he has to sit *over* the knees of the patient, and this is easily possible with the stool shown, which can be placed *between* the knees of the patient, regardless of sex, and at a sufficient height (which, in some cases, is two feet), so the seat of the stool is above the patient's knees. In this way the operator, by sitting, if necessary, well forward on the seat, becomes master of the situation, and can, at all times, keep the patient's head within easy reach. In the use of the stool the operator, so to speak, mounts and dismounts from behind, as there is no back to prevent his so doing. From several years' experience with this combination of chair and stool I can heartily recommend them, feeling sure that they meet all the exigencies of the work. Of course,

it is not claimed that the chair is a seat of comfort with so vertical a back, but as utility is what is most desired we can easily pass that seeming objection. One feature in the manufacture of both chair and stool, made at my particular suggestion, is that the upper three-quarters-inch of the female thread of the screw is cut away, so as to render impossible the elevation of the chair so high as to permit its falling over. To me it seems, to say the least, intensely strange that makers have for years and years been making screw-pivot chairs with this defect, and through it many injuries have been sustained. The remedy I suggested is so simple and efficient that it should need no further argument in favor of its universal adoption by all manufacturers of pivot-screw chairs.

Figure 3. Cuspidor Holder.

For the rhinologist, in addition to suitable operating chairs, a fountain cuspidor is also a great convenience. As for one reason or another few can avail themselves of this luxury, I have suggested a cheap substitute, shown in Figure 3. It is light, strong, graceful, does not tip over, and holds a cuspidor at a height which greatly enhances its convenient use by the patient. It will be easily seen that aside from its use by the rhinologist its field of usefulness is broad as a valuable piece of furniture in hospital wards and sick chambers, as, by its use, the patient confined in bed can so much easier reach the cuspidor.

These three pieces of office furniture have been neatly constructed for me by the A. H. Andrews Company, of Chicago, and the metal portions are of twisted steel, which is practically indestructible and incidentally as near the aseptible as could be desired.

Columbus Memorial Building.

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EDITORIAL.

BREVITY AND SIMPLICITY IN MEDICAL WRITING.

The intention of contributors to medical literature is presumably to impart knowledge. The purposes subserved by polite literature for the masses are principally of an entertaining nature, with the pointing of correct morals as an incidental, but the writer on scientific topics aims to set down what he either knows or believes to be true. The former finds a wide field for the play of fancy; the latter is quite strictly confined to demonstrable or supposed facts.

The writers of fiction delight in long stories, but the medical mind

finds life too short and the fields of imperative investigation too broad to tolerate useless verbiage. One of the charming features of the Bible is its simplicity of thought and language. The same is true of Cæsar's Commentaries, Virgil's Æneid, the poems of Horace and Homer, Xenophon's Anabasis and the dialogues of Socrates—keys to the classics that will be perpetuated as long as our race retains an interest in the Greek and Latin tongues. Their construction of language, like the architecture of the Grecian temples, commands the admiration of all who study it. Their methods of conveying thought are matchless gems of naturalness and perspicuity.

In our own day, scientific writers, like Huxley, who make the most abstruse and perplexing problems seem as school-boy examples, are models after whom we can well afford to pattern. The story of the late war between the States, as told by General Grant, a man of military affairs rather than of letters, is the more fascinating because of its direct and unaffected manner, like that of Cæsar, whom he emulated in the best sense only.

If direct, plain and terse language is admirable in popular authors, how much more desirable is it in teachers of subjects which require close mental application. The opposite of these qualities too often afflict several classes of medical writers. It would be possible to mention a book on ophthalmology, of cumbersome proportions, in which many of the subjects are so obscured by ambiguous verbosity that the reader feels, after floundering through a miry article, that his intelligence has been imposed upon and that he has paid for something which he did not get. Such writers befuddle the brain, and their productions are likely to be short-lived.

Ophthalmology has evolved an elaborate nomenclature and a system of symbols peculiar to itself. It has become permeated with exclusive technical terms that render the average article on diseases of the eye an enigma to the general practitioner. Contributions of this character in journals on general medicine are riddles to the majority of readers.

Is such enforced exclusiveness necessary and intended? If it is, what will be the result, if not to alienate the great mass of physicians from specialists? The ever-widening chasm between the specialist and the general practitioner is not of the latter's making. His language changes little. He does not delight in double and triple hyphenated mixtures of Greek and Latin roots with Saxon terminations. While he progresses with the growth of medical science, he does not walk with stilted gait, but remains the same plain man whom everyone can understand.

In otology and laryngology there is appearing a similar tendency to emphatically segregate this specialty from the co-ordinate branches of medicine. The effort is apparent in the adoption of high-sounding technical phraseology derived from the dead languages, and too often of a mongrel origin. This tendency is gratuitous and should be repressed.

The medical profession is already too much divided. Our multiplying specialties may yet prove to be our tower of Babel. It is already sufficiently difficult to understand one another. What with the ophthalmologist, the laryngologist, the gynecologist, etc., medical language, with its insufferable proliferation of technical terminology, will outgrow the power of man to master. We are flying apart like the tail of the comet; let us keep nearer the great body of the profession.

It is quite a common error with beginners in medical writing to assume a manner of expression entirely foreign to their natural speech. It appears as if they felt the necessity of assuming an inflated style of language such as they have somewhere seen and admired. They must, as it were, speak in a trance, guided by the spirit of learning, in such lofty sentences and rhythmical cadences as to astonish their every-day friends. Now, the average mortal loves unadulterated nature, and we readily incline toward naturalness, or realism, in literature. When a man says clearly just what he means, in a way that you cannot help but understand, you mentally say: "That's good; I like that," and you go on reading his article to the end, enticed sentence after sentence by such a plain presentation of his subject that it appeals to your appreciation of the beauty of simplicity, and you follow him to the end, in spite of the fact that you merely glanced at the article, intending not to read it. This man gets you by a sympathetic chord and he holds you. Whenever you see an article labeled with his name you do not leave it until you know its contents. It is like the child and the sugar bowl.

Short articles invite attention. They are the ones that are the most likely to have many readers, other things being equal—we will not say *ceteris parabus*—for English is good enough, and stands a far better chance of being understood by the majority. And is it not the majority for whom we write? Men of finished scholarship will surely understand; the mediocre will not trouble themselves with that which costs a mental effort. We recognize the fact, however, that all articles cannot be brief and yet be complete and finished products.

The habit of sandwiching one's articles with words, phrases and sentences from foreign tongues is always a source of vexation to a

large part of one's readers. There are two reasons for resorting to these foreign injections. In one case it is fair to presume that the writer believes that his readers are conversant with the foreign tongue that he has studied. If this be true, why not write the whole article in that language which he apparently considers will the more worthily express his thoughts? In the other instance the writer drops into foreign expressions, by the grace of his dictionary, to confound his readers with his superior learning, forgetting that the architecture of his own language is a very mirror in which is reflected the picture of himself consulting the "quotations, words, phrases, etc.," of his unabridged Webster.

The average reader who pays as much as his more cultured brother for the privilege of reading, cannot be supposed to relish interpolations of words and sentences in Greek, Latin, French, German or Russian. This style of affectation exhibits the profound linguistic accomplishments of the writer, or demonstrates his possession of a lexicon; but the reader is entitled to his opinion of both the man and his methods. Of true learning naught but words of high appreciation can be said; but it should be wedded to simplicity, like Gladstone to his ax. We love the naturalness, simplicity, purity of purpose, the ingeniousness of child-life, and we admire the corresponding qualities in the man.

BISHOP.

OFFICE DISINFECTION.

Much has been written concerning the precautionary measures to be employed by sanitary boards and health officers in subjecting all public places to frequent and thorough disinfection. Many of the energies of our medical profession have been well spent in this direction, and the greater regard now paid for cleanliness in our railroad stations, street cars, theaters, jails, and other public places much frequented, is the result.

Perhaps it may be well to add a suggestion which might be of interest to the large class of specialists whose principal work is confined to office practice.

The reception room of a physician is quite a cosmopolitan place, particularly in the metropolis. Here extremes often meet; aristocracy and poverty; cleanliness and filth; the delicate odor of violets and the strong, penetrating smell of garlic.

Seated side by side in the office of the otologist and laryngologist may be found the ozœnic nose, the putrid, suppurative otitis media, the diphtheritic, the consumptive with laryngeal complications and

incessant cough and expectoration, the patient with tonsilitis and his young neighbor, whose whooping cough determines the diagnosis even before his entrance to the consulting-room.

It might be interesting to follow up this line of thought into its possible consequences. Suffice it to say, however, that many of our ablest colleagues look upon the contamination and infection possible in their reception and consulting rooms with utter indifference.

Only last week I reduced a hypertrophied turbinate with the galvano-cautery in an otherwise thoroughly healthy girl; during the same day I had previously treated three or four cases of tonsilitis and one case of diphtheria. When my young patient of the galvano-cautery presented herself for further treatment twenty-four hours later, she had developed a typical, bilateral tonsilitis, the first involvement of that character which she had ever had. Is it not reasonable to suppose that the operative interference in the nose diminished the natural resistance of the mucous membrane of the naso-pharynx and pharynx, and that the exposure to the contagious influence of tonsilitis and diphtheria found a fertile field?

With the establishment of antiseptics, the physician has been taught to appreciate the value of careful disinfection and sterilization of his instruments, appliances and dressings. Of what value is the thoroughly sterilized tongue depressor or nasal speculum on a susceptible mucous membrane when the air of the consulting room is laden with aerobic micro-organisms galore?

Perhaps the fumigation of our offices seems an unnecessary precautionary measure, but the actual experiment of bacteriological examination of the waiting and consulting rooms has been undertaken with convincing results. Of this, more anon.

Thus far the methods of fumigation have been accompanied by so many unpleasant features and details that frequent repetitions would be inconvenient. With the introduction of Formaldehyde, however, a clean and efficient fumigation has been made possible.

The small Formaline lamp, recently introduced by Shering and Glatz, with the accompanying formalin pastilles is the method of deodorizing and disinfecting which I now employ every two or three days in my office. Formalin is one of the most energetic disinfectants known and a small quantity also suffices to completely destroy the foul odors so prevalent in the office.

In conclusion, I would emphasize that disinfection of the atmosphere is of almost equal importance with sterilization of our instruments.

OUR PROGRAMME.

The launching of our European edition has been received in the most kindly manner by the leading medical journals of England, Scotland and Ireland. We refrain from quoting their encouraging remarks, but in one instance the policy which we had determined on is so pithily put and so aptly illustrated by a quotation from Mr. Jonathan Hutchinson that we could hardly do better than take it as a summary of our programme. The following is from the *British Medical Journal:*

THE LARYNGOSCOPE, a monthly journal devoted to diseases of the nose, throat and ear, which has earned for itself a high reputation among special journals in America, will henceforth appear in a European edition, published by Messrs. John Wright & Co., of Bristol. Dr. St. Clair Thomson will have charge of the European edition. It is intended to give the journal a thoroughly comprehensive and cosmopolitan character. In the selection of the matter the needs of the general practitioner (in whose practice the affections with which THE LARYNGOSCOPE concerns itself occupy a considerable place) will be kept in view as well as those of the specialist. To none of the special departments of the healing art more than that to which the periodical in question takes as its province, are the following words of Mr. Jonathan Hutchinson applicable:

"In the early stage of any department of knowledge, it is almost a matter of necessity that it should be in the hands of a few. But it is the highest privilege of those who thus devote themselves to the reclaiming of new spots of territory, to be able after awhile to hand them over to the commonwealth, to prove that they are now cultivated and well worthy of annexation."

Analytical summaries are of the greatest importance to the special worker who needs to keep in touch with everything published in this department of practice. To him they are invaluable for reference, but as frequently no selection is made, these *abrégés* are apt to prove rather barren reading to the general physician.

A large part of our space is devoted to original communications on practical subjects, leading articles and commentaries. Full epitomes are given of leading articles, and our readers may, therefore, rely on finding complete details and descriptions of everything which is of interest, or which promises to be of value.

Now that the technique of Laryngology and Otology is more generally taught, much greater interest is taken in diseases of the nose, throat and ear by the general physician than was formerly the case. And, as the *British Medical Journal* points out, there are few special departments to which the words of Mr. Jonathan Hutchinson are as applicable as they are to the one with which we are concerned. Our "new spot of territory" has been well tilled, and certainly much of it is ready to hand over to the commonwealth.

THOMSON.

SOCIETY PROCEEDINGS.

THE NEW YORK ACADEMY OF MEDICINE.

SECTION ON LARYNGOLOGY AND RHINOLOGY.

A stated Meeting, held on January 26, 1898, at 8:15 o'clock.

Jonathan Wright, M.D., Chairman;

Thos. J. Harris, M.D., Secretary.

Dr. Berens presented to the section a new "cut-off" for air condenser, made by Mr. G. H. Pauli, of the Manhattan Eye, Ear and Throat Hospital, of this city. It cuts itself off by means of air pressure, and is a very convenient instrument. There is no packing.

Dr. McKernon showed the section a new modification of staphylorraphy needle, designed for closing the rents in the hard palate. With the old needles he had found difficulty in getting stitches in back of the front teeth. In the last three cases he had used the needles; they had proved very efficacious. They consist of two needles, a right and left.

The Chairman presented J. O. Roe's instrument for operating upon deflected septum.

The Chairman said that, in regard to the staphylorraphy needles, he had a set which he purchased many years ago, with which he had expected to sew up holes in the hard and soft palate. Shortly after this, he was told to use chromic acid in these cases, and since then he has never seen a case which did not close after prolonged painting the edges of the perforation. To him it was wonderful how large a perforation, even of the palate, will close under this treatment. He did not refer to cleft palate cases.

Dr. Freudenthal presented a case of osteoma of the ossa nasalia. The patient was a man, thirty years of age, who came to the doctor with some impediment in breathing. He could not breathe freely through the right side and but very little through the left side. He often had headaches, especially on the right side. He does not know how it commenced, but he says that eleven years ago something seemed to grow outside the nose. In looking at the man a hard, bony ridge was seen which extended from the inner canthus of the eye down to the superior maxillary bone. At this point it seems

to turn around and go inside the nose. This has grown within the last year. On the other side is a similar hard, bony mass growing, but it is not so large.

The question now to consider was, what was this tumor which has grown during the past eleven years? The speaker saw the patient first one year ago and thought it was an osteoma, and he still believed so. He demonstrated the patient at Dr. Jacobi's house. It was thought it might be congenital syphilis, but there were no other symptoms of this disease present. Some thought it might be a rhinoscleroma, but he did not think that likely, especially as no other symptoms of this trouble had developed.

In looking up the literature in regard to osteoma in nasal cavities, it is noted that the majority of cases originate from the ethmoidal cells.

In this case the growth was symmetrical on both sides. In the interior of the nose was noticed an irregular mass.

The speaker would like to know if any gentleman present had met with a similar case in their experiences.

Dr. Quinlan said that a year and a half ago he presented before this section of the academy a case similar to the one before us, only the lines were more strongly marked, especially over the malar prominences. The patient suffered very much from obstruction (nasal) and continued pressure at the root of the nose. The recumbent position greatly accelerated the pulse and breathing—he thought the case had many features in common with the patient before us. He regarded it as a form of osteosarcoma—however, exceptions were taken to his diagnosis—some of the members thought the growth was an enchondroma.

Dr. Quinlan watched his case for many months, but there was no material change in the aspect of the patient, except there was somewhat more atresia than was noticed at first seeing the patient. He concluded from the general appearance of his case, and the peculiar character of the symptoms, that the condition was due to syphilis.

Dr. Kammerer said he had come here to see Dr. F.'s cases and not to take part in the discussion. He had some doubts as to the diagnosis in this case. Osteoma that developed from the ethmoid cells and encroaches upon the cavity of the nose and causes destruction of bone there could be more readily seen from the nasal cavity itself than in this case. As Dr. Freudenthal had said, there was a symmetrical tumor on both sides of the nose which would lead us to believe that the development had taken place into the nasal cavity.

The speaker referred to a case of a young girl, aged seventeen,

who had a large tumor, filling entirely the right nasal cavity, and which could be felt posteriorly behind the palate and could be seen anteriorly; this was removed by an incision along the middle of the nose, which incision was supplemented by another incision that permitted the removal of the edge of the superior maxilla.

The speaker thought the condition might be due to some congenital condition in this case. Palpation of the nasal bones also, he thought, made it improbable that their shape was due to a tumor developing beneath them and separating them.

Dr. Coakley said that three or four years ago he had a case similar to this occurring in a young girl, with blocking up of the nose. Also, with similar osteomata, situated on the forehead and on the inferior maxilla. It was regarded as specific, and it did improve under anti-syphilitic treatment. The obstruction was so great that it necessitated an operation, which was done by lifting the face and chiseling away, and so making a passage by cutting through the exostosis.

Dr. Knight reported a similar case, in which the external features were a widening of the bridge of the nose and a separation of the eyeballs. In the nose were found large middle turbinates wedged against the septum, and a symmetrical blocking up of the inferior meatus by bands of adhesion. He thought that the case might be syphilitic, but there was no response to anti-syphilitic treatment. There was no progress as regards the facial disfigurement and he simply relieved the adhesions by excision with the cautery knife.

The Chairman asked if iodide of potassium had been given. Answered, yes; in full doses without result.

Dr. Berens said the mass was situated on the nasal bone. He would like to see inside; that, of course, the mass included the one inside.

Dr. Freudenthal said anti-syphilitic treatment had been administered in this case frequently—three or four times without the least result. No improvement had taken place since coming under observation. The only thing to do was to open the nose by a cut along the center and we then might find an osteoma, in which event the patient might be cured entirely. In Vienna the patient had consulted several men who all agreed that he should go to a hospital and have an operation performed. The mass is greater inside and one can easily feel it. It has grown larger during the past year.

Dr. Berens presented a case that he had operated upon for deflected septum; he did the modified Adam's operation with his cork splint. The patient was an instructor in the art of self-defense and six days after the operation he was struck a hard blow on the nose,

but the splint remained in place, firmly fixed. He thought this was a severe test for the operation.

Dr. Lederman told of a case of supernumerary tonsil. This occurred in a child ten years of age who gave a history of being a sufferer from dyspnœa. The tonsils were very large and there was but little space between the tonsils for the child to breathe. With the consent of the parents the tonsils were removed. They were of large size and required the large-sized tonsillotome. Afterward, he saw the right faucial space fill with another tonsil of the same size. Examination will be made by Dr. Douglass. It was distinctly a third tonsil, situated behind the one that was excised.

The Chairman said he had had the opportunity of examining supernumerary tonsils microscopically. They were apparently the result of fibrous contraction of the portion of the tonsil into a pedicle, thus becoming separated from the tonsil structure itself. All that he had seen or heard of, had their attachment to the tonsils or their immediate neighborhood.

Abscess of the Nasal Septum.

Dr. J. S. Waterman read a paper with this title. After he had worked for three years in nose and throat clinics in New York and Brooklyn without meeting with a single case of abscess of the septum, he concluded that this must be a rare condition. He found very little in medical literature on this subject. Bosworth makes no mention of abscess of the nasal septum in his book, and Lenox Brown devotes but eight lines to the subject. Gibbs, of Philadelphia, found two cases in 2,000 cases of nose and throat trouble. Gougenheim reports six cases, Uroblewski and Kicer thirteen, which he calls hæmatoma, although they contain pus. Dr. Rault is said to have reported from sixty to eighty cases in one year.

In regard to the etiology all seem to agree that the most common cause is traumatism, such as a blow or a fall. Cases are reported by various observers following small pox, scarlet fever, typhoid fever, erysipelas, anthrax and exposure to cold. Cases have also been reported resulting from a diseased tooth, from infection of the cutaneous septum and from operation for the removal of an ecchondrosis of the septum. This does not include the so-called chronic cases which may be due to syphilis or tuberculosis.

Gougenheim finds the usual nasal pyogenic organisms present in the pus, but the author said that no examinations of the pus were made in his cases.

These nasal abscesses occur more often in males than in females,

and in children than in adults. In forty-four cases, twenty-four were in children, twenty in adults. In twenty-six only was sex mentioned, twenty-three were males and three females.

The usual site of the lesion is over the cartilaginous septum. It is usually bilateral, but may be unilateral.

The symptoms and physical signs are usually pain, redness and swelling of the nose, sometimes slight rigors and a rise of temperature. There is an occlusion of both nostrils, if the abscess is bilateral. The patient breathes through the mouth, snores in his sleep and suffers from dryness of the mouth and throat. Headache may be present. The voice is muffled, lacks resonance and is nasal in character. Cases are described where there is considerable swelling of the cheeks and eyelids, with excessive lacrymation. In nearly all cases there is a broadening of the nose with a bellying out of the alæ. There is very little if any discharge anteriorly.

Examination shows the nostrils filled with a tense tumor, usually light red in color, but it may be a dark bluish-red, with a somewhat glistening surface suggesting a polyp, but without the semi-transparent appearance of that growth. A probe passed around the tumor shows that it rises from the septum. Hertzfeld and others report cases where the tumor was so large that there was a hernia of the mucous membrane.

The diagnosis would seem very simple and easy, as the tumor is quite characteristic, and when due to traumatism the history is an aid. In cases where there is any doubt, the use of the hypodermic needle will soon confirm the diagnosis. In many cases there is a perforation of the cartilage with a greater or less amount of necrosis.

Dr. Waterman gave a very interesting report of the seven cases of abscess of the nasal septum that had come under his observation.

Dr. Phillips said there was one point made in the paper which verified the opinion formed years ago, that nearly all cases of abscess of the septum were the result of traumatism. He never remembered a case of this kind that was not due to this cause. It may come on for an indefinite time before anything is done for its relief. He had at times wondered why a blow on the nose resulted in abscess; the doctor's explanation was that the blow caused the hemorrhage between the mucous membrane and deeper layers, and later resulted in pus formation. The last case he had treated was in private practice. A woman had a little misunderstanding with her husband and he administered to her a blow upon the nose; the speaker was very much surprised at the rapid formation of the pus. There formed an enormous abscess of the nasal septum. It was not more than four

days afterward that an incision was made and pus was found. There followed perfect recovery and there was no perforation nor any deformity of the septum.

The speaker said he had not seen many cases of deformity or perforation of the cartilage.

Dr. Lederman said that the case referred to by the reader of the paper was a case of ecchondromata of the septum. She was a young lady, and a simple operation was performed. She was directed to use carbolic solution, but she developed an abscess four or five days after the operation. It was unilateral, and no deformity followed.

Another case was that of a young man struck on the nose; it was a unilateral abscess that formed and there followed no deformity.

Another case seen one year ago; this case also got well after an incision and antiseptic treatment without deformity or perforation of the septum.

Dr. McKernon said be saw a case last year; a child, four years of age, who had an abscess of the septum on the left side, resulting from scarlet fever. Three weeks after the scarlet fever developed a marked pustular eruption was noticed over the body, and situated upon the cartilaginous septum was an abscess completely occluding the opening.

It was opened with a knife and got well quickly without deformity. It was unilateral.

Dr. Knight reported a case of abscess of the septum following typhoid fever. There was marked depression of the nose and a plastic operation was required. It has been said that deformity from abscess is rare; at the same time, his experience had taught him the importance of early recognition of the nature of the condition, and prompt evacuation of the pus. No doubt the majority of cases are of traumatic origin.

Dr. Mayer had seen a case of post-operative abscess of the septum. It was in a case of dislocation of the columnar cartilage where he had dissected up the mucous membrane and excised a piece of the cartilage. The abscess developed ten days later, and it appeared at first that no benefit had accrued from the operation. Upon incision of the abscess, however, the parts became normal and the patient has been well since.

Dr. Simpson thought that no permanent perforation of the septum need occur; that it was possible to have abscess without perforation. This could be proven in a number of ways. Although perforation of the septum may have existed, there is no doubt that perforation of the septum could be prevented.

Dr. Berens reported a case in the hospital with occlusion of both sides almost complete; pus came from each side, and there was no perforation. One side, when syringed, showed the return of the fluid on that same side, but none appeared on the other.

The speaker had seen a case of bilateral formation, which had resulted in complete destruction of the cartilaginous septum. The patient had had syphilis. There was some traumatism connected with it and the trouble had existed about six weeks.

Dr. Waterman closed the discussion. In regard to perforation of the cartilage, he knew of a case where there was a permanent perforation. Another case he knew of, where there was abscess formation, which had drained completely through one incision. There was slight deformity.

The Restoration of a Deflected Septum.

Dr. Beaman Douglass read a paper with this title. He believed that deflections were caused generally by traumatism in early life, blows and falls upon the nose, which were subsequently followed by nutritive changes, and increased bulging of the cartilage as age advances. It is rare for patients to refer their septa obstructions to a blow.

After referring to the symptoms the speaker said it was necessary, before proceeding to a description of the operation, to consider briefly the mechanical problems which may be presented by a crooked septum. A convenient clinical division of five classes may be made on the operation table, as follows:

1. Deflected cartilaginous septum whose deformity is (a) bowing; (b) ridged; (c) sigmoid, or (d) complicated with enlargement (turbinal) of free side, exostosis or ecchondrosis, or dislocation from superior maxillary ridge.
2. Deflected cartilage and osseous septum.
3. Deflected cartilage with external deformity.
4. Deflected cartilage with high osseous plate.
5. Deflected cartilage with perforations from traumatism, ulceration or abscess.

Before operation one should remove septal thickenings in the form of exostosis and ecchondrosis; also, from the unobstructed side, any pathological condition of the turbinated tissues which would form an obstruction to the free side after the septum had been replaced.

The examination by means of the finger will determine the convexities and concavities in the septum and will show the lines where the septum has been previously bent or where fracture has taken place; the finger also ascertains whether the triangular cartilage joins

the superior maxillary ridge, or whether the cartilage has been deflected or fractured, or displaced from this ridge.

In operating, a spear knife is introduced and carried past the deflection. An incision is made about three-fourths of an inch long, *following the line of deflection*. Next a blunt-pointed bistoury is introduced into this incision. A cut is usually made as far forward as the epithelium and vestibule of the nose, *following along the ridge of convexity*. Next ascertain whether a deflection from the superior maxillary exists; if so, and if it consists of a displacement of both the bony ridge and cartilage, an attempt should be made to break the bone free from its attachment by means of forceps. But if cartilage is found to have slipped from its articulation and obstructs near the floor, it is a deflection of the cartilage and should be treated as in the preceding paragraphs.

Next we should break up any elastic bands that exist in the submucosa, by forcibly rocking and twisting the septum with forceps. Then we should bend the septum away from the side that has been obstructed. The splints are next introduced; they are made of vulcanized rubber with a straight power border and a perfectly straight septal side. The inner end of the splint is smaller than the outer end which is made to catch the upper part of the alae nasi; the side of the splint which is next to the septum has a flat surface; the side next to the inferior turbinated body is concave. A large splint is introduced into the previously obstructed side, producing just enough pressure to force the septum a line past the perpendicular.

The patient should be kept in bed twenty-four hours and the splints should not be removed for forty-eight hours unless certain symptoms make it necessary. The usual antiseptic precautions should be carried out.

At the first removal of the splint, if the septum bulges it can be replaced by means of a nasal periosteal elevator. The splint on the formerly obstructed side should be worn four weeks.

Dr. Asch opened the discussion. He first took up the etiology of deflection of the septum. In his own experience, he thought, traumatism was the least common of all cases of deflected septum. He said that he would like to go on record in stating that cases of deflected septum were in the majority of cases either congenital or due to unequal development of the laminæ of the afterbirth, and not due to traumatism. The description of the forms of deflected septum that the reader of the paper gave was correct and were those met with in his experience.

In cases of extreme deflection, he thought it would be impossible

to insert the finger into the occluded side. On the convex side it is difficult sometimes even to get a spatula in between the septum and the turbinated bone. The speaker referred to an instrument, devised by Seiler, which could be introduced into the nose, in the handle of which was a scale, which could tell us the amount of thickening.

In regard to the operation, he thought it ought to be successful provided we got a proper incision of the septum. It is impossible to correct a deflected septum unless you destroy its elasticity. This cannot be done with a single cut; must have more than one cut and the ligaments made in this way should be forced into the unobstructed nostril so as to render them flaccid.

He said it was difficult to destroy the resiliency of the septum unless this be done, or as soon as healing takes place the deformity will return.

In regard to the dislocation of the lower border of the septum, this occurred quite frequently, breaking up the septum, loosens the lower border of the cartilage so it can be put in place and held there by the splints introduced afterward. He had not tried Dr. Douglass' splint, but he did not see the necessity of having it concave on one side an oval splint will hold just as well.

The speaker thought it was generally dangerous, after breaking up the cartilaginous septum, to undertake to break up the long septum. It might not be possible to limit the amount of damage.

Dr. Berens wished to thank Dr. Douglass for the interesting paper he had given the section that evening. He wished to emphasize one point, which was dislocating the septum from the septal ridge from the superior maxilla. He referred to the time that Dr. Nichols appeared before the section, six years ago, and called attention to this same thing. The speaker read a paper five years ago and reiterated the same thing. The speaker showed the section a skull on which was marked a deep sulcus in the perpendicular plate of the ethmoid in which the septum sets. Unless we broke through we could not correct the septal deformity. The ridge was quite marked and the septum fits in same as does the glass in a watch.

It was the doctor's opinion that in the vast majority of cases the deformity of the septum was caused by traumatism. It might be caused during birth, while the baby is coming into the world.

In regard to cutting the septum, he said he could conceive of cases where this is necessary, but that he had done a great many operations and had never yet seen a case where this was necessary.

The speaker had never had one failure since 1881; he used Adams' forceps, breaking the cartilaginous septum and freeing it from its at-

tachments; he said it was absolutely necessary to break the cartilaginous septum from the bony septum; this was easily done with Adam's forceps. He had never seen any ill results from fracturing the bony septum. He did not see the advantage of using a knife when he had such a good instrument, as devised by Adams.

In regard to inserting the finger, this at times cannot be done. As a rule, however, the finger will go through, owing to the resiliency of the cartilage.

In regard to the splint, the speaker used a cork one, that he showed in 1891, which had a concavity for the inferior turbinated. The only fault he found with the splint, as devised by Asch and Douglass, they are too narrow perpendicularly.

The splint the speaker devised was so made that the tip of the nose was held in suspension and so it takes off the tension from the ala. It is aseptic, made of cork and covered with flexile collodion.

Dr. Coffin said he was much interested in the paper and its discussion. For a long time watching operations upon the septum and the result, he had come to believe that a deviated septum should be operated upon with the saw, believing that the fenestrum frequently produced in that way less objectionable than the much distorted septum often produced by operations. He had become quite converted to Dr. Douglass' operation since seeing the results of his work in many cases, and for some time now he had operated upon deformed septums doing both Dr. Douglass' and Dr. Asch's operations. In principle he could not see a great difference in the two operations; both incise the septum and both aim to break up the resiliency of the cartilage.

He thought to place the finger in the nose on the obstructed side would often be impossible, and he did not see how it was possible to get a knife into a small hole posterior to a marked deflection from the convex side. It might be done from the concave side.

As to Dr. Asch's operation, he found the clumsiness of the instruments the great objection. It was difficult for him to place the instruments in position in the nose, and he thought it almost impossible to do so without doing considerable injury to the inferior turbinated on the obstructed side.

As to the splint, he felt with Dr. Berens that they were too narrow at the posterior end; he found the curved splint especially objectionable. It was more liable to rotate upward and allow the lower flaps of cartilage to fall out of position, causing not only a perforation but a very unsightly septum. He had never used one, but believed Dr. Berens' to be one of the best splints in use. It can be shaped to suit the needs and ends of each case.

In regard to number of incisions, Dr. Douglass makes one or more; Dr. Asch makes two, and Dr. Berens does without any and the patients seem to do well in either case.

Dr. Douglass emphasizes one point—that the septum should be left as nearly in a perpendicular plane as possible. This he regards a very important point. The density of air in the Eustachian tube must depend upon the volume, velocity and direction of air flowing over its open end. All of which is influenced by deformities of the septum.

Dr. Tansley said that he had had considerable experience with deflected septæ.

He had listened to the reading of the paper with great pleasure and complimented the writer of it. The first case of deflected septum he had recognized was in 1876, before he had the pleasure of being an M. D. and while studying ear diseases. The first operation which appears upon his books was in 1877, at which time he had charge of a clinic at the Manhattan Eye and Ear Hospital. He thought he had tried every individual operation introduced, as well as the one devised by Dr. Asch.

Nearly all cases came to him because of deafness and were usually of the worst types.

The opinion he had come to was that no cutting or breaking of the septum is necessary except in the last stages of the operation. He makes it a point to injure the septum as little as possible. This conclusion had been reached because of the trouble he had had in correcting the deformities of the auricle, and the difficulties he had had in having the cartilage of the ear unite.

Having failed in a number of cases, not getting straight septæ or relief of the deafness, a number of years ago he devised the operation which he now does, which is as follows: Upon the concave side of the septum he makes a horizontal cut along the apex of the concavity. Sometimes two inches in length, this cut goes through the mucous membrane and perichondrium. He always does it under cocaine and never under ether. Having made the cut, he carefully dissects up the mucous membrane, from the septum upward, say ½ or ¾ of an inch, and downward to the floor of the nasal cavity, thus renewing the concave side of the septum.

He then takes a smooth instrument, and by manipulating along the convex side of the septum he gets it limber and presses the upper portion of the *convex* side downward and to the concavity, and the lower portion of the *convex* side upward and to the concavity, and retains them there by two rolls of cotton upon an aluminum probe.

He thus converts the convexity into a sharp angular spur, and the previously concave side forms the center of this spur, and its renewed portion unites together. He repeatedly moistens these cotton splints with a solution of biniodide of mercury, alcohol and water, and leaves them in position for a week. The patient does not go to bed for two days, but sits in an easy chair. At the end of a week the angular spur is cut off and there follows perfect healing, and his results have so far been perfectly satisfactory. He had never had a failure and no perforation of the septum.

The loss of blood during one of these operations is usually very small.

Dr. O. B. Douglass said the subject under consideration interested him. He had done the various operations for deflected septum and with varying success. He commended the paper as offering some excellent suggestions, but he questioned the propriety of operating in all cases of deviated septum. When the nostril is absolutely occluded an operation is necessary and should be done to relieve it. He considered the operation as somewhat formidable.

In contrast with these modern methods of operating he recalled a case operated upon by him, a dozen or more years ago, in which he pierced the septum with a sharp-pointed, curved bistoury, at an acute angle with its surface, the point of the bistoury being prevented from wounding tissues in the occluded nostril by inserting a pine stick into which the point was pushed sufficiently to hold and steady the bistoury as the two were withdrawn, so far as it was necessary to cut, when they were disengaged and removed. We may sometimes do good work with improvised instruments if an exigency demands. The surgeon must be more than an instrument holder.

In reference to the causes of deflected septa he thought traumatism a more frequent cause than all others combined. It might be by instruments or pressure when the child is born, and it, doubtless, is in certain cases.

The operation most often done by him, to correct deflected septa, was that which he described some years ago, and consisted in removing an ovoid piece, at the point of greatest flexion, by a properly constructed punch, then bringing the cut edges together by means of a silver wire suture. The edges unite readily, but the parts must be held in a proper position by splints in the nose, and for this purpose he thought Dr. Berens' cork splint as good as any. He formerly used silver tubes.

Dr. Emil Mayer said that he was pleased to have heard Dr. Douglass' paper and that he practically performs the Asch operation with

knives instead of scissors. In those cases where he performs a crucial incision it is entirely identical.

There are many cases of deviation that require no operation, and a statistical study that the speaker made showed that in the Manhattan Eye and Ear Infirmary, for instance, the proportion of deviations in all nose cases was one in ten, and of these about one in nine were operated upon.

In a recent paper the speaker made a report of 200 successful cases operated upon by the method of Asch, and it was his opinion that this method was the best yet devised for the correction of the deformity.

In regard to the vulcanite tubes, objection was made that the perforations in the tube were insufficient for drainage. This is quite true, for there was nothing to drain. The sole object of these perforations was to insure its retention without slipping, and in the event of the end of the tube being rather high, some air could enter the nasal cavity through them. There was no difficulty in cleansing these tubes. He had no experience with the cork splints, but he objected to them because cork cannot be made thoroughly aseptic, and, secondly, because when covered with iodoform, as suggested by Dr. Berens, they must be a source of intense annoyance to the patient and his surroundings. He would prefer to have a deviation forever on his own person rather than endure the constant stench of iodoform in his nose for five weeks.

From remarks that had been make, it would seem that descriptions of the Asch operation were rather confusing, and so, with the permission of the section, he would present a brief epitomized description of the Asch operation:

1. With the cutting blade in the cavity, parallel to the floor of the nose over greatest convexity, cut through.
2. Withdraw scissors.
3. With the cutting blade in the cavity, pointing to frontal bone and as near the center of the first incision as possible, cut through.
4. Withdraw scissors.
5. Push segments thus incised into the cavity, effectually breaking them at their bases.
6. With compression forceps segments are made to override by firm pressure, but no violence.
7. Introduce tubes.

WESTERN OPHTHALMOLOGICAL, OTOLOGICAL, LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.

The third annual meeting of the Western Ophthalmological, Otological, Laryngological and Rhinological Association will take place April 7th and 8th, 1898, in Chicago. Arrangements are being completed for a joint session and separate section meetings. The provisional program includes the following papers:

OPHTHALMOLOGICAL SECTION.

"Moot Questions in Refractive Work"—H. Gradle, Chicago.
"Recent Researches into the Histo-Pathology of Trachoma"—A. Alt, St. Louis.
"Miscellaneous Notes from Fifteen Years' Experience in Eye Diseases"—Barton Pitts, St. Joseph, Mo.
"Four Cases of Parinaud's Conjunctiva"—H. Gifford, Omaha, Neb.
"On the Use of Suprarenal Capsule Extract in Minor Eye Surgery"—J. A. Mullen, Houston, Tex.
"The Antiseptic Preparation of the Conjunctiva for Cutting Operations of the Eye-Ball"—B. E. Fryer, Kansas City.
"Dacrocystitis: Its Significance and Treatment"—A. E. Bulson, Jr., Fort Wayne, Ind.
"Colored Ophthalmoscopic Pictures"—C. H. Beard, Chicago.
"The Science of Ophthalmology"—Dudley S. Reynolds, Louisville.
"Use of DeZang's Refractometer"—T. A. Woodruff, Chicago.
"Paper on Refractometer"—J. E. Jennings, St. Louis.
"Report of a Case of Tumor of the Cerebellum"—E. W. Heltman, Toledo, O.

Papers have also been promised by Dr. C. Barck, St. Louis; Dr. H. V. Würdemann, Milwaukee; Dr. Frank Allport, Chicago; Dr. A. C. Carr, Carlinville, Ill.

OTOLOGICAL, LARYNGOLOGICAL AND RHINOLOGICAL SECTION.

"A Review of the Pathological Conditions Affecting the Lingual Tonsil"—E. C. Ellett, Memphis, Tenn.
"The Non-Operative Treatment of Catarrhal Diseases of the Upper Respiratory Tract"—W. Scheppegrell, New Orleans.
"Further Report on Removal of Ossicles"—Norval H. Pierce, Chicago.
"Fallacies in the Present Physiology of the Ear"—M. A. Goldstein, St. Louis.
"Mastoiditis"—E. O. Sisson, Keokuk, Ia.
"Mastoiditis of Dental Origin, Occurring in a Diabetic"—Frank M. Rumbold, St. Louis.
"Treatment of Chronic Suppuration of the Middle Ear with Gauze Packing"—Alice Ewing, Chicago.
"Politzer Air Bag"—W. H. Baker, Lynchburg, Va.

Papers have also been promised by Dr. Max Thorner, Cincinnati; Dr. Edwin Pynchon, Chicago; Dr. J. O. Stillson, Indianapolis; Dr. Homer Thomas, Chicago; Dr. H. H. Brown, Chicago.

A number of interesting microscopical and pathological specimens have also been promised by Drs. Thomas, Westcott, Goldstein and Alt. Several of the local members will present cases, and a separate consideration will be given the presentation of new instruments.

The Chicago meeting promises to be the best and largest in the history of this young special organization.

Application for membership, or for any details of the meeting, should be addressed to the Secretary, DR. FRANK M. RUMBOLD,
449-51 Century Bldg., St. Louis, Mo.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION —SECTION OF LARYNGOLOGY AND OTOLOGY.

The sixty-sixth annual meeting of the above Association will be held at Edinburgh on Tuesday, Wednesday, Thursday and Friday, July 26, 27, 28, 29, 1898, under the Presidency of Sir Thomas Grainger Stewart, Professor of Medicine in the University of Edinburgh.

The officers of the Section of Laryngology and Otology are:

President, Peter McBride, M.D.; Vice-Presidents, J. J. Kirk Duncanson, M.D., J. Dundas Grant, M.D., Robert Mackenzie Johnston, M.D., St. Clair Thomson, M.D.; Honorary Secretaries, A. Brown Kelly, M.B., 26 Blythswood Square, Glasgow; A. Logan Turner, M.D., 20 Coates Crescent, Edinburgh.

SOCIETY ANNOUNCEMENTS.

American Laryngological, Rhinological and Otological Society.

The fourth annual meeting (general meeting) of the American Laryngological, Rhinological and Otological Society will be held in Pittsburg, Pa., May 11 and 12, 1898.

Southern Section, American Laryngological, Rhinological and Otological Society.

The Southern Section of the American Laryngological, Rhinological and Otological Society will convene in Atlanta, Ga., March 28, 1898.

The meeting will be held in the parlors of the Aragon Hotel, the headquarters of the Society. Chairman, Dr. A. W. Calhoun; Secretary, Dr. Dunbar Roy.

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As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. ***Fellows.***"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to:

Mr. FELLOWS, 48 Vesey Street, New York.